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THE WRITINGS OF
HENRY DAVID THOREAU

JOURNAL

EDITED BY BRADFORD TORREY

XI

JULY 2, 1858–FEBRUARY 28, 1859

BOSTON AND NEW YORK
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JOURNAL

VOLUME XI

THE JOURNAL OF HENRY DAVID THOREAU

VOLUME XI

I

JULY, 1858 (ÆT. 40–41)

July 2. A. M. — Start for White Mountains in a private carriage with Edward Hoar.

Notice in a shallow pool on a rock on a hilltop, in road in North Chelmsford, a rather peculiar-looking *Alisma Plantago*, with long reddish petioles, just budded.

Spent the noon close by the old Dunstable graveyard, by a small stream north of it. Red lilies were abundantly in bloom in the burying-ground and by the river. Mr. Weld's monument is a large, thick, naturally flat rock, lying flat over the grave. Noticed the monument of Josiah Willard, Esq., "Captain of Fort Dummer." Died 1750, aged 58.

Walked to and along the river and bathed in it. There were harebells, well out, and much *Apocynum cannabinum*, well out, apparently like ours, prevailing along the steep sandy and stony shore. A marked peculiarity in this species is that the upper branches rise above the flowers. Also get the *A. androsæmifolium*, quite downy beneath. The *Smilacina stellata* going to seed, quite common in the copse on top of the bank.

What a relief and expansion of my thoughts when I come out from that inland position by the graveyard to this broad river's shore! This vista was incredible there. Suddenly I see a broad reach of blue beneath, with its curves and headlands, liberating me from the more terrene earth. What a difference it makes whether I spend my four hours' nooning between the hills by yonder roadside, or on the brink of this fair river, within a quarter of a mile of that! Here the earth is fluid to my thought, the sky is reflected from beneath, and around yonder cape is the highway to other continents. This current allies me to all the world. Be careful to sit in an elevating and inspiring place. There my thoughts were confined and trivial, and I hid myself from the gaze of travellers. Here they are expanded and elevated, and I am charmed by the beautiful river-reach. It is equal to a different season and country and creates a different mood. As you travel northward from Concord, probably the reaches of the Merrimack River, looking up or down them from the bank, will be the first inspiring sight. There is something in the scenery of a broad river equivalent to culture and civilization. Its channel conducts our thoughts as well as bodies to classic and famous ports, and allies us to all that is fair and great. I like to remember that at the end of half a day's walk I can stand on the bank of the Merrimack. It is just wide enough to interrupt the land and lead my eye and thoughts down its channel to the sea. A river is superior to a lake in its liberating influence. It has motion and indefinite length. A river touching the back of a town is like a wing, it may be unused as yet, but

ready to waft it over the world. With its rapid current it is a slightly fluttering wing. River towns are winged towns.

I returned through the grass up the winding channel of our little brook to the camp again. Along the brook, in the rank grass and weeds, grew abundantly a slender umbelliferous plant mostly just out of bloom, one and a half to four feet high. Either *Thaspium aureum* or *Cryptotænia Canadensis* (Sison).[1] Saw also the scouring-rush, apparently just beginning to bloom!

In the southern part of Merrimack, passed a singular "Horseshoe Pond" between the road and the river on the interval. Belknap says in his History, speaking of the changes in river-courses, "In some places these ancient channels are converted into ponds, which, from their curved form, are called horseshoe ponds."

Put up at tavern in Merrimack, some miles after passing over a pretty high, flat-topped hill in road, whence we saw the mountains (with a steep descent to the interval on right).

7 P. M. — I walked by a path through the wood northeast to the Merrimack, crossing two branches of Babboosuck Brook, on which were handsome rocky falls in the woods.

The wood thrush sings almost wherever I go, eternally reconsecrating the world, morning and evening, for us. And again it seems habitable and more than habitable to us.[2]

[1] *Vide* June 3d, 1852, and May 11th, 1859.

[2] *Vide* next page.

July 3. Continued along in a slight rain through Bedford, crossing to Manchester, and driving by a brook in Hookset just above Pinnacle. Then through Allenstown and Pembroke, with its long street, to Loudon, leaving Concord on the left. Along the sandy roadside in a pitch pine wood in Loudon, much apparent *Calystegia spithamæa* in bloom, but I think with reddish flowers. Probably same with my New Bedford plant.

July 4. *Sunday.* A. M. — Clears up after a rainy night. Get our breakfast apparently in the northern part of Loudon, where we find, in a beech and maple wood, *Panax quinquefolium*, apparently not quite out, *Osmorrhiza brevistylis* (or hairy uraspermum), gone to seed, which Bigelow refers to woods on Concord Turnpike, *i. e.* hairy sweet cicely. Also ternate polypody (?). Saw a chestnut tree in Loudon.

Leaving Loudon Ridge on the right we continued on by the Hollow Road — a long way through the forest without houses — through a part of Canterbury into Gilmanton Factory village. I see the *Ribes prostratum*, or fetid currant, by roadside, already red, as also the red elder-berries, ripe or red.[1] Strawberries were abundant by the roadside and in the grass on hillsides everywhere, with the seeds conspicuous, sunk in pits on the surface. (*Vide* a leaf of same kind pressed.)

The Merrimack at Merrimack, where I walked, — half a mile or more below my last camp on it in '39, — had gone down two or three feet within a few days, and the muddy and slimy shore was covered with the tracks

[1] This only in the northern part of New Hampshire.

of many small animals, apparently three-toed sandpipers, minks, turtles, squirrels, perhaps mice, and some much larger quadrupeds. The *Solidago lanceolata*, not out, was common along the shore. Wool-grass without black sheaths, and a very slender variety with it; also *Carex crinita*.

We continue along through Gilmanton to Meredith Bridge, passing the Suncook Mountain on our right, a long, barren rocky range overlooking Lake Winnepiseogee. Turn down a lane five or six miles beyond the bridge and spend the midday near a bay of the lake. *Polygonum cilinode*, apparently not long. I hear song sparrows there among the rocks, with a totally new strain, ending *whit whit, whit whit, whit whit whit.* They had also the common strain. We had begun to see from Gilmanton, from high hills in the road, the sharp rocky peak of Chocorua in the north, to the right of the lower Red Hill. It was of a pale-buff color, with apparently the Sandwich Mountains west of it and Ossipee Mountain on the right. The goldfinch was more common than at home, and the fragrant fern was perceived oftener. The evergreen-forest note frequently heard.

It is far more independent to travel on foot. You have to sacrifice so much to the horse. You cannot choose the most agreeable places in which to spend the noon, commanding the finest views, because commonly there is no water there, or you cannot get there with your horse. New Hampshire being a more hilly and newer State than Massachusetts, it is very difficult to find a suitable place to camp near the road, affording water, a good prospect, and retirement. We several

times rode on as much as ten miles with a tired horse, looking in vain for such a spot, and then almost invariably camped in some low, unpleasant spot. There are very few, scarcely any, lanes, or even paths and bars along the road. Having got beyond the range of the chestnut, the few bars that might be taken down are long and heavy planks or slabs, intended to confine sheep, and there is no passable road behind. And beside, when you have chosen a place one must stay behind to watch your effects, while the other looks about. I frequently envied the independence of the walker, who can spend the midday hours and take his lunch in the most agreeable spot on his route. The only alternative is to spend your noon at some trivial inn, pestered by flies and tavern loungers.

Camped within a mile south of Senter Harbor, in a birch wood on the right near the lake. Heard in the night a loon, screech owl, and cuckoo, and our horse, tied to a slender birch close by, restlessly pawing the ground all night and whinnering to us whenever we showed ourselves, asking for something more than meat to fill his belly with.

July 5. Monday. Continue on through Senter Harbor and ascend Red Hill in Moultonboro. On this ascent I notice the *Erigeron annuus*, which we have not, methinks, *i. e. purple* fleabane (for it is commonly purplish), hairy with thin leaves and broader than the *strigosus*. Notice the *Comandra umbellata*, with leaves in three very regular spiral lines. Dr. Jackson says that Red Hill is so called from the uva-ursi on it turning red in

the fall. On the top we boil a dipper of tea for our dinner and spend some hours, having carried up water the last half-mile.

Enjoyed the famous view of Winnepiseogee and its islands southeasterly and Squam Lake on the west, but I was as much attracted at this hour by the wild mountain view on the northward. Chocorua and the Sandwich Mountains a dozen miles off seemed the boundary of cultivation on that side, as indeed they are. They are, as it were, the impassable southern barrier of the mountain region, themselves lofty and bare, and filling the whole northerly horizon, with the broad vale or valley of Sandwich between you and them; and over their ridges, in one or two places, you detected a narrow, blue edging or a peak of the loftier White Mountains proper (or so called). Ossipee Mountain is on the east, near by; Chocorua (which the inhabitants pronounce She-corway or Corway), in some respects the wildest and most imposing of all the White Mountain peaks, north of northeast, bare rocks, slightly flesh-colored; some large mountains, perhaps the Franconia, far northwesterly; Ragged (??) Mountain, south of west; Kearsarge, southwest; Monadnock (?), dim and distant blue, and some other mountains as distant, more easterly; Suncook Mountain, south-southeast, and, beyond the lake, south of southeast, Copple-Crown Mountain (?). When I looked at the near Ossipee Mountain (and some others), I saw first smooth pastures around the base or extending part way up, then the light green of deciduous trees (probably oak, birch, maple, etc.), looking dense and shrubby, and above all the rest, looking like

permanent shadows, dark saddles of spruce or fir or both on the summits. Jackson says larch, spruce, and birch reach to the summit of Ossipee Mountain. The landscape is spotted, like a leopard-skin, with large squarish patches of light-green and darker forests and blue lakes, etc., etc.

On the top I found *Potentilla tridentata*, out a good while, choke-berry, red lily, dwarfish red oaks, *Carex Novæ-Angliæ* (?), and a carex *scoparia*-like. Apparently the common *Vaccinium Pennsylvanicum*, and just below, in the shrubbery, the *Vaccinium Canadense* was the prevailing one. Just below top, a clematis, and, as you descended, the red oak, growing larger, canoe birch, some small white birch, red maple, rock maple, *Populus tremuliformis*,[1] diervilla (very common), etc., etc.[2]

Heard the chewink on the summit, and saw an ant-hill there, within six rods of apex, about seven by six feet in diameter and sixteen inches high, with grass growing on all sides of it. This reminded me of the great ant-hills I saw on Chesterfield Mountain, opposite Brattleboro.

Descended, and rode along the west and northwest side of Ossipee Mountain. Sandwich, in a large level space surrounded by mountains, lay on our left. Here first, in Moultonboro, I heard the *tea-lee* of the white-throated sparrow. We were all the afternoon riding along under Ossipee Mountain, which would not be left

[1] The common species afterward on sides and about the mountains.

[2] Diervilla and checkerberry common after on mountainsides.

behind, unexpectedly large still, louring over your path. Crossed Bearcamp River, a shallow but unexpectedly sluggish stream, which empties into Ossipee Lake. Have new and memorable views of Chocorua, as we get round it eastward. Stop at Tamworth village for the night.

We are now near the edge of a wild and unsettlable mountain region, lying northwest, apparently including parts of Albany and Waterville. The landlord said that bears were plenty in it; that there was a little interval on Swift River that might be occupied, and that was all. Norcross gets his lumber in that region, on Mad and Swift Rivers, as I understood; and on Swift River, as near as I could learn, was the only road leading into it.

July 6. *Tuesday.* 5.35 A. M. — Keep on through North Tamworth, and breakfast by shore of one of the Ossipee Lakes. Chocorua north-northwest. Hear and see loons and see a peetweet's egg washed up. A shallow-shored pond, too shallow for fishing, with a few breams seen near shore; some pontederia and target-weed in it.

Travelling thus toward the White Mountains, the mountains fairly begin with Red Hill and Ossipee Mountain, but the White Mountain scenery proper on the high hillside road in Madison before entering Conway, where you see Chocorua on the left, Mote Mountain ahead, Doublehead, and some of the White Mountains proper beyond, *i. e.* a sharp peak.

We fished in vain in a small clear pond by the roadside in Madison.

Chocorua is as interesting a peak as any to remember. You may be jogging along steadily for a day before you get round it and leave it behind, first seeing it on the north, then northwest, then west, and at last southwesterly, ever stern, rugged and inaccessible, and omnipresent. It was seen from Gilmanton to Conway, and from Moultonboro was the ruling feature.

The scenery in Conway and onward to North Conway is surprisingly grand. You are steadily advancing into an amphitheatre of mountains. I do not know exactly how long we had seen one of the highest peaks before us in the extreme northwest, with snow on its side just below the summit, but a little beyond Conway a boy called it Mt. Washington. I think it was visible just before entering Conway village. If Mt. Washington, the snow must have been in Tuckerman's Ravine, which, methinks, is rather too low. Perhaps it was that we afterward saw on Mt. Adams. There was the regular dark pyramid of Kearsarge at first in front, then, as you proceed to North Conway, on our right, with its deserted hotel on the summit, and Mote Mountain accompanies you on the left, and high, bare rocky precipices at last on the same side. The road, which is for the most part level, winds along the Saco through groves of maples, etc., on the level intervals, with so little of rugged New Hampshire under your feet, often soft and sandy road. The scenery is remarkable for this contrast of level interval with soft and shady groves, with mountain grandeur and ruggedness. Often from the midst of level maple groves, which remind you only of classic lowlands, you look out through a vista to the most

rugged scenery of New England. It is quite unlike New Hampshire generally, quite unexpected by me, and suggests a superior culture. We at length crossed the Saco from the left to the right side of the valley, going over or through three channels. After leaving North Conway, the higher White Mountains were less seen, if at all. They had not appeared in pinnacles, as sometimes described, but broad and massive. Only one of the higher peaks or summits (called by the boy Mt. Washington) was conspicuous. The snow near the top was conspicuous here thirty miles off. The summit appeared dark, the rocks just beneath pale-brown (forenoon) (not flesh-colored like Chocorua), and below, green, wooded.

The road to-day from Tamworth almost to the base of Mt. Washington was better on the whole, less hilly, than through Gilmanton to Tamworth; *i. e.*, the hills were not so long and tedious.

At Bartlett Corner we turned up the Ellis River and took our nooning on the bank of the river, by the bridge just this side of Jackson Centre, in a rock maple grove. Saw snow on Mt. Carter (?) from this road. There are but few *narrow* intervals on this road, — two or three only after passing Jackson, — and each is improved by a settler. We see the handsome *Malva sylvestris*, an introduced flower, by roadside, apparently in prime, and also in Conway, and hear the night-warbler all along thus far.

Saw the bones of a bear at Wentworth's house, and camped, rather late, on right-hand side of road just beyond, or a little more than four miles from Jackson.

The wood was canoe birch and some yellow (see little of the small white birch as far as to the neighborhood of the mountains), rock maple, spruce, fir, *Populus tremuliformis*, and one *grandidentata*, etc. In this deep vale between the mountains, the sun set very early to us, but we saw it on the mountains long after. Heard at evening the wood thrush, veery, white-throated sparrow, etc., and I found a fresh nest in a fir, made of hemlock twigs, etc., when I was getting twigs for a bed. The mosquitoes troubled us in the evening and just before dawn, but not seriously in the middle of the night. This, I find, is the way with them generally.

Wentworth said he was much troubled by the bears. They killed his sheep and calves and destroyed his corn when in the milk, close by his house. He has trapped and killed many of them and brought home and reared the young. When we looked up in the night we saw that the stars were bright as in winter, owing to the clear cold air.

July 7. Wednesday. Having engaged the services of Wentworth to carry up some of our baggage and to keep our camp, we rode onward to the Glen House, eight miles further, sending back our horse and wagon to his house. This road passes through what is called the Pinkham Notch, in Pinkham's Grant, the land, a large tract, having been given away to Pinkham for making the road a good while since. Wentworth has lived here thirty years and is a native. Have occasional views of Mt. Washington or a spur of it, etc.

Get by roadside, in bloom some time, *Geum macrophyllum;* also, in a damp place, *Platanthera dilatata*, a narrow white spike. Turned off a little to the right to see Glen Ellis Falls.

Began the ascent by the mountain road at 11.30 A. M.

For about the first three quarters of a mile of steady (winding) ascent the wood was spruce, yellow birch (some, generally the largest, with a very rough, coarse, scaly bark, but other trees equally large had a beautifully smooth bark, and Wentworth called these "silver birch;" it appeared not to depend on age merely), hemlock, beech, canoe birch (according to Willey, "most abundant in the districts formerly burnt"), rock maple, fir, mountain maple (called by Wentworth bastard maple), northern wild cherry, striped maple, etc. At about a mile and three quarters spruce prevails, and rock maple, beech, and hemlock, etc., disappear. At three miles, or near the limit of trees, fir (increasing) and spruce chiefly prevail. And near by was the foot of the ledge and limit of trees, only their dead trunks standing, probably fir and spruce, about the shanty where we spent the night with the colliers.

I went on nearly a mile and a half further, and found many new alpine plants and returned to this shanty. A merry collier and his assistant, who had been making coal for the summit and were preparing to leave the next morning, made us welcome to this shanty and entertained us with their talk. We here boiled some of our beef-tongues, a very strong wind pouring in gusts down the funnel and scattering the fire about through the cracked stove. This man, named Page, had im-

ported goats on to the mountain, and milked them to supply us with milk for our coffee. The road here ran north and south to get round the ledge. The wind, blowing down the funnel, set fire to a pile of dirty bed-quilts when I was out, and came near burning up the building. There were many barrels of spoiled beef in the cellar, and he said that a person coming down the mountain some time ago looked into the cellar and saw five wildcats (*loups-cerviers*) there. Page had heard two fighting like cats near by a few nights before. The wind blowed very strong and in gusts this night, but he said it was nothing to what it was sometimes, when the building rocked four inches.

July 8. Though a fair day, the sun did not rise clear. I started before my companions, wishing to secure a clear view from the summit, while they accompanied the collier and his assistant, who were conducting up to the summit for the first time his goats. He led the old one, and the rest followed.

I noticed these plants this morning and the night before at and above the limit of trees: *Oxalis Acetosella*, abundant and in bloom near the shanty and further down the mountain, all over the woods; *Cornus Canadensis*, also abundantly in bloom about the shanty and far above and below it. At shanty, or limit of trees. began to find *Alsine Grœnlandica* abundant and in prime, the first mountain flower.[1] Noticed one returning, in carriage-road more than half-way down the mountain. It extended to within a mile of summit

[1] Durand in Kane puts it at 73° + in Greenland.

along path,[1] and grew about our camp at Hermit Lake. The second mountain plant I noticed was the ledum,[2] growing in dense continuous patches or fields, filling broad spaces between the rocks, but dwarfish compared with ours in Concord. It was still in bloom. It *prevailed* about two miles below the summit. At the same elevation I noticed the *Vaccinium uliginosum*, a prevailing plant from the ledge to perhaps one mile or more below summit, almost entirely out of bloom, a procumbent bilberry, growing well, not dwarfish, with peculiar glaucous roundish-obovate leaves.[3] About the same time and locality, *Salix Uva-ursi*, the prevailing willow of the alpine region, completely out of bloom and going or gone to seed, a flat, trailing, glossy-leaved willow with the habit of the bearberry, spreading in a close mat over the rocks or rocky surface. I saw one spreading flat for three or four feet over a rock in the ravine (as low as I saw it).[4] *Diapensia Lapponica* (*Menziesia cærulea*),[5] beginning about same time, or just over the ledge, reached yet higher, or to within last mile. Quite out of bloom; only one flower seen. It grows in close, *firm*, and dense rounded tufts, just like a moss but harder, between the rocks, the flowers con-

[1] Aye, to summit.

[2] Loudon makes three (!) species, and says bees are very fond of the flower.

[3] According to Durand at 78° N. in Smith's Sound.

[4] Durand in Kane places this at 65° N. in Greenland, but Kane (vol. i, p. 462) says that Morton and Hans saw it along the shore of Kennedy Channel, the furthest coast reached, and that with the southern Esquimaux it is reputed to cure scurvy.

[5] According to Durand, at 73° in Greenland.

siderably elevated above its surface. *Empetrum nigrum*, growing somewhat like *Corema*, with berries green and some turning black.[1] Mountain cranberry was abundant and in bloom, a very pretty flower, with, say, the *Vaccinium uliginosum* and to within last mile. Gold-thread in bloom, was abundant to within last mile. As high as the above, on this side or that extended dwarf shrubby canoe birches and almost impassable thickets of dwarf fir and spruce. The latter when dead exhibited the appearance of deer's horns, their hard, gnarled, slow-grown branches being twisted in every direction. Their roots were singularly knotted and swollen from time to time, from the size of the finger into oval masses like a ship's block, or a rabbit made of a handkerchief. Epigæa.[2] At this height, too, was a *Lycopodium annotinum*, a variety; and, probably, there, too, *L. Selago*, as at edge of rayine;[3] sedges, sorrel, moss, and lichens. Was surprised not to notice the *Potentilla tridentata* in bloom till quite high, though common on low mountains southward.[4] Here it was above the trailing spruce, answering to top of Monadnock, and with it came more sedge, *i. e.* a more grassy surface without many larger plants. (George Bradford says he has found this potentilla on Cape Ann, at Eastern Point, east side Gloucester Harbor.[5]) About a mile below top, *Geum radiatum* var. *Peckii* in prime, and

[1] According to Durand, as far as Disco Island, 70° N.; "the ordinary food of deer and rabbits."

[2] And after pretty high on Lafayette.

[3] Both, according to Durand, at 64° N. in Greenland.

[4] According to Durand at 79° N.

[5] And Russell says in the college yard at Amherst.

a little *Silene acaulis* (moss campion), still in bloom, a pretty little purplish flower growing like a moss in dense, hard tufts.[1]

The rocks of the alpine portion are of about uniform size, not large nor precipitous. Generally there is nothing to prevent ascending in any direction, and there is no climbing necessary on the summit. For the last mile the rocks are generally smaller and more bare and the ascent easier, and there are some rather large level grassy spaces. The rocks are not large and flat enough to hold water, as on Monadnock. I saw but little water on this summit, though in many places, commonly in small holes on the grassy flats, and I think the rocky portion under your feet is less interesting than at Monadnock. I sweated in a thick coat as I ascended. About half a mile below top I noticed dew on the mossy, tufted surface, with mountain cranberry in the sedge.

On the very summit I noticed moss, sedge (the kind I have tied together),[2] forming what is now to be called the Great Pasture there, they say; a little alsine and diapensia; a bright-green crustaceous lichen;[3] and that small dark-brown umbilicaria-like one (of Monadnock), of which I have a specimen. The rocks, being small and not precipitous, have no such lichen-clad angles as at Monadnock, yet the general aspect of the rocks about you is dark-brown. All over the summit there is

[1] Durand says at 73° + in Greenland.

[2] *Carex rigida*, with a black spike.

[3] Is this *Lecida geographica*? Oakes (in "Scenery," etc.) speaks of the geographic lichen as found on the summit; *viz.* "the yellow of the beautiful geographic lichen."

a great deal of that sedge grass, especially southeast and east amid the smallish rocks. There was a solidago (or aster) quite near summit (not out), perhaps *S. Virgaurea.*

The only bird I had seen on the way up, above the limit of trees, was the *Fringilla hyemalis.* Willey says the swallow flies over the summit and that a bear has been seen there.

I got up about half an hour before my party and enjoyed a good view, though it was hazy, but by the time the rest arrived a cloud invested us all, a cool driving mist, which wet you considerably, as you squatted behind a rock. As I looked downward over the rock surface, I saw tinges of blue sky and a light as of breaking away close to the rocky edge of the mountain far below me instead of above, showing that there was the edge of the cloud. It was surprising to look down thus under the cloud at an angle of thirty or forty degrees for the only evidences of a clear sky and breaking away. There was a ring of light encircling the summit, thus close to the rocks under the thick cloud, and the evidences of a blue sky in that direction were just as strong as ordinarily when you look upward.

On our way up we had seen all the time, before us on the right, a large patch of snow on the southeast side of Mt. Adams, the first large summit north of Washington. I observed that the enduring snow-drifts were such as had lodged under the southeast cliffs, having been blown over the summit by the northwest wind. They lie up under such cliffs and at the head of the ravines on the southeast slopes.

A Mr. White, an artist taking views from the summit, had just returned from the Gulf of Mexico with the pretty purple-flowered *Phyllodoce taxifolia* and *Cassiope hypnoides*.

The landlords of the Tiptop and Summit Houses, Spaulding and Hall, assured me that my (Willey's) map was wrong, both in the names and height of Adams and Jefferson, — that the order should be reversed, Adams being the sharp peak, the second large one north of Washington, — but Boardman's map also calls this Jefferson.

About 8.15 A.M., being still in a dense fog, we started direct for Tuckerman's Ravine, I having taken the bearing of it before the fog, but Spaulding also went some ten rods with us and pointed toward the head of the ravine, which was about S. 15° W. Hoar tried to hire Page to go with us, carrying part of our baggage, — as he had already brought it up from the shanty, — and he professed to be acquainted with the mountain; but his brother, who lived at the summit, warned him not to go, lest he should not be able to find his way back again, and he declined. The landlords were rather anxious about us. I looked at my compass every four or five rods and then walked toward some rock in our course, but frequently after taking three or four steps, though the fog was no more dense, I would lose the rock I steered for. The fog was very bewildering. You would think that the rock you steered for was some large boulder twenty rods off, or perchance it looked like the brow of a distant spur, but a dozen steps would take you to it, and it would suddenly have sunk into the

ground. I discovered this illusion. I said to my companions, "You see that boulder of a peculiar form, slanting over another. Well, that is in our course. How large do you think it is, and how far?" To my surprise, one answered three rods, but the other said nine. I guessed four, and we all thought it about eight feet high. We could not see beyond it, and it looked like the highest part of a ridge before us. At the end of twenty-one paces or three and a half rods, I stepped upon it, — less than two feet high, — and I could not have distinguished it from the hundred similar ones around it, if I had not kept my eye on it all the while.

It is unwise for one to ramble over these mountains at any time, unless he is prepared to move with as much certainty as if he were solving a geometrical problem. A cloud may at any moment settle around him, and unless he has a compass and knows which way to go, he will be lost at once. One lost on the summit of these mountains should remember that if he will travel due east or west eight or nine miles, or commonly much less, he will strike a public road. Or whatever direction he might take, the average distance would not be more than eight miles and the extreme distance twenty. Follow some water-course running easterly or westerly. If the weather were severe on the summit, so as to prevent searching for the summit houses or the path, I should at once take a westward course from the southern part of the range or an eastward one from the northern part. To travel there with security, a person must know his bearings at every step, be it fair weather or foul. An ordinary rock in a fog, being in the apparent horizon,

is exaggerated to, perhaps, at least ten times its size and distance. You will think you have gone further than you have to get to it.

Descending straight by compass through the cloud, toward the head of Tuckerman's Ravine, we found it an easy descent over, for the most part, bare rocks, not very large, with at length moist springy places, green with sedge, etc., between little sloping shelves of green meadow, where the hellebore grew, within half a mile of top, and the *Oldenlandia cærulea* was abundantly out (!) and very large and fresh, surpassing ours in the spring. And here, I think, *Juncus trifidus* (?),[1] and *Lycopodium Selago*, and *Lonicera cærulea*, or mountain fly-honeysuckle, in bloom, only two specimens; it is found in the western part of Massachusetts.[2] Saw a few little ferns of a narrow triangular form, somewhat like the *Woodsia Ilvensis*, but less hairy and taller; small clintonias in bloom, and *Viola palustris*, in prime, from three quarters of a mile below summit down to snow; and a fine juncus or scirpus, *cæspitosus*-like, *i. e.* a single-headed or spiked rush; and trientalis, still in bloom, rather depauperate; and, I think, a few small narrow-leaved blueberry bushes; at least one minute mountain-ash. Also the *Geum radiatum* var. *Peckii* was conspicuous in prime hence down to the snow in the ravine. These chiefly in those peculiar moist and mossy sloping shelves on the mountain-side, on way to the ravine, or within a mile of the summit.

[1] Yes.

[2] Oakes makes the plain above the ravine twelve hundred feet or more below summit.

Some twenty or thirty rods above the edge of the ravine, where it was more level and wet and grassy under low cliffs, grew the *Phyllodoce taxifolia*, not in tufts, under the jutting rocks and in moss, somewhat past prime.[1] The *Uvularia grandiflora* apparently in prime, and, part way down into ravine, *Loiseleuria* (*Azalea*) *procumbens*, on rocks, still in bloom,[2] and *Cassiope hypnoides*, about done. These four on a moist southeast slope. Also *Rubus triflorus*, reaching to camp, in prime.

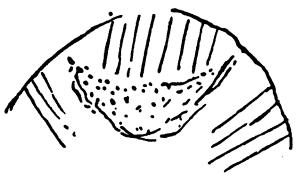
Just on the edge of the ravine I began to see the *Heracleum lanatum* in prime, and the common archangelica, not out; and as I descended into the ravine on the steep side moist with melted snows, *Veronica alpina*, apparently in prime, and *Nabalus Boottii* (?) budded, down to snow, and *Epilobium alpinum* in prime, and *Platanthera dilatata* in prime, and the common rue and the first *Castilleja septentrionalis* (*Bartsia pallida*), apparently not long, which was more common about our camp. I recollect seeing all the last eight (except the rue and veronica and nabalus, which I do not remember) about our camp and yet more flourishing there and *Solidago Virgaurea* var. *alpina*, not quite out, edge of ravine. Should have included *Arnica mollis* among those on side of ravine reaching to camp, and, according to Hoar, raspberry and linnæa.

We crossed a narrow portion of the snow, but found it unexpectedly hard and dangerous to traverse. I tore up my nails in my efforts to save myself from sliding

[1] According to Durand, at Disco, 70° N.

[2] According to Durand, at 69° in Greenland.

down its steep surface. The snow-field now formed an irregular crescent on the steep slope at the head of the ravine, some sixty rods wide horizontally, or from north to south, and twenty-five rods wide from upper to lower side. It may have been half a dozen feet thick in some places, but it diminished sensibly in the rain while we were there. Is said to be all gone commonly by end of August. The surface was hard, difficult to work your heels into, and a perfectly regular steep slope, steeper than an ordinary roof from top to bottom. A considerable stream, a source of the Saco, was flowing out from beneath it, where it had worn a low arch a rod or more wide. Here were the phenomena of winter and earliest spring, contrasted with summer. On the edge of and beneath the overarching snow, many plants were just pushing up as in our spring. The great plaited elliptical buds of the hellebore had just pushed up there, even under the edge of the snow, and also bluets. Also, close to edge of snow, the bare upright twigs of a willow, with small silvery buds not yet expanded, of a satiny lustre, one to two feet high (apparently *Salix repens*),[1] but not, as I noticed, procumbent, while a rod off on each side, where it had been melted some time, it was going to seed and fully leaved out. The surface of the snow was dirty, being covered with cinder-like rubbish of vegetation, which had blown on to it. Yet from the camp it looked quite white and pure. For thirty or forty rods, at least,



[1] Also apparently *S. phylicifolia*. *Vide* Sept. 21.

down the stream, you could see the point where the snow had recently melted. It was a dirty-brown flattened stubble, not yet at all greened, covered with a blackish slimy dirt, the dust of the snow-crust. Looking closely, I saw that it was composed in great part of the stems and flowers apparently of last year's goldenrods (if not asters), — perhaps large *thyrsoidea*, for they grew there on the slides, — now quite flattened, with other plants. A pretty large dense-catkined willow grew in the upper part of the ravine, *q. v.* Also, near edge of snow, vanilla grass, a vaccinium,[1] budded, with broad obovate leaves (*q. v.*), *Spiræa salicifolia* (and *on slides*), and nabalus (*Boottii ?*) leaves.

From the edge of the ravine, I should have said that, having reached the lower edge of the cloud, we came into the sun again, much to our satisfaction, and discerned a little lake called Hermit Lake, about a mile off, at the bottom of the ravine, just within the limit of the trees. For this we steered, in order to camp by it for the sake of the protection of the wood. But following down the edge of the stream, the source of Ellis River, which was quite a brook within a stone's throw of its head, we soon found it very bad walking in the scrubby fir and spruce, and therefore, when we had gone about two thirds the way to the lake, decided to camp in the midst of the dwarf firs, clearing away a space with our hatchets.

[1] This is apparently *V. cæspitosum*, for the anthers are two-awned, though I count but ten stamens in the flower I open, and I did not notice that the plant was tufted. Apparently the same, with thinner leaves, by Peabody River at base, but noticed no flowers there. Yet Gray refers it only to the alpine region!

Having cleared a space with some difficulty where the trees were seven or eight feet high, Wentworth kindled a fire on the lee side, without — against my advice — removing the moss, which was especially dry on the rocks and directly ignited and set fire to the fir leaves, spreading off with great violence and crackling over the mountain, and making us jump for our baggage; but fortunately it did not burn a foot toward us, for we could not have run in that thicket. It spread particularly fast in the procumbent creeping spruce, scarcely a foot deep, and made a few acres of deer's horns, thus leaving our mark on the mountainside. We thought at first it would run for miles, and W. said that it would do no harm, the more there was burned the better; but such was the direction of the wind that it soon reached the brow of a ridge east of us and then burned very slowly down its east side. Yet Willey says (page 23), speaking of the dead trees or "buck's horns," "Fire could not have caused the death of these trees; for fire will not spread here, in consequence of the humidity of the whole region at this elevation;" and he attributes their death to the cold of 1816. Yet it did spread above the limit of trees in the ravine.

Finally we kept on, leaving the fire raging, down to the first little lake, walking in the stream, jumping from rock to rock with it. It may have fallen a thousand feet within a mile below the snow, and we camped on a slight rising ground between that first little lake and the stream, in a dense fir and spruce wood thirty feet high, though it was but the limit of trees there. On our way we found the *Arnica mollis* (recently begun to bloom),

a very fragrant yellow-rayed flower, by the side of the brook (also half-way up the ravine). The *Alnus viridis* was a prevailing shrub all along this stream, seven or eight feet high near our camp near the snow. It was dwarfish and still in flower, but in fruit only below; had a glossy, roundish, wrinkled, green, sticky leaf. Also a little *Ranunculus abortivus* by the brook, in bloom.

Close by our camp, the *Heracleum lanatum*, or cow-parsnip, masterwort, grew quite rankly, its great leaves eighteen inches wide and umbels eight or nine inches wide; the petioles had inflated sheaths. I afterward saw it, I think in Campton, as much as seven feet high. It was quite common and conspicuous in the neighborhood of the mountains, especially in Franconia Notch. Our camp was opposite a great slide on the south, apparently a quarter of a mile wide, with the stream between us and it, and I resolved if a great storm should occur that we would flee to higher ground northeast. The little pond by our side was perfectly clear and cool, without weeds, and the meadow by it was dry enough to sit down in. When I looked up casually toward the crescent of snow I would mistake it for the sky, a white glowing sky or cloud, it was so high, while the dark earth on [the] mountainside above it passed for a dark cloud.

In the course of the afternoon we heard, as we thought, a faint shout, and it occurred to me that Blake, for whom I had left a note at the Glen House, might possibly be looking for me; but soon Wentworth decided that it must be a bear, for they make a noise like a woman in distress. He has caught many of them.

Nevertheless, we shouted in return and waved a light coat on the meadow. After an hour or two had elapsed, we heard the voice again, nearer, and saw two men, and I went up the stream to meet Blake and Brown, wet, ragged, and bloody with black flies. I had told Blake to look out for a smoke and a white tent, and we had made a smoke sure enough. They were on the edge of the ravine when they shouted and heard us answer, or about a mile distant, — heard over all the roar of the stream!! You could hear one shout from Hermit Lake to the top of the ravine above snow, back and forth, which I should think was a mile. They also saw our coat waved and ourselves. We slept five in the tent that night, and it rained, putting out the fire we had set. It was quite warm at night in our tent.

The wood thrush, which Wentworth called the nightingale, sang at evening and in the morning, and the same bird which I heard on Monadnock, I think, and then thought might be the Blackburnian warbler; also the veery.[1]

July 9. *Friday.* Walked to the Hermit Lake, some forty rods northeast. *Listera cordata* abundant and in prime in the woods, with a little *Platanthera obtusata*, also apparently in prime. (The last also as far up as the head of the ravine sparingly.) This was a cold, clear lake with scarcely a plant in it, of perhaps half an acre, and from a low ridge east of it was a fine view up the ravine. Hoar tried in vain for trout here. The *Vaccinium Canadense* was the prevailing one here and by our

[1] *Vide* Apr. 15th, 1859, about going up a mountain.

camp. Heard a bullfrog in the lake, and afterward saw a large toad part way up the ravine. Our camp was about on the limit of trees here, and may have been from twenty-five hundred to three thousand feet below the summit.

I was here surprised to discover, looking down through the fir-tops, a large, bright, downy fair-weather cloud covering the lower world far beneath us, and there it was the greater part of the time we were there, like a lake, while the snow and alpine summit were to be seen above us on the other side, at about the same angle. The pure white crescent of snow was our sky, and the dark mountainside above, our permanent cloud.

We had the *Fringilla hyemalis* with its usual note about our camp, and Wentworth said it was common and bred about his house. I afterward saw it in the valleys about the mountains. I had seen the white-throated sparrow near his house. This also, he said, commonly bred there, on the ground.

The wood we were in was fir and spruce. Along the brook grew the *Alnus viridis*, *Salix Torreyana* (?), canoe birch, red cherry, mountain-ash, etc., and prominent among lesser plants, *Heracleum lanatum*, *Castilleja septentrionalis*, the swamp gooseberry in flower and in green fruit, and a sort of *Ribes floridum* without resinous-dotted leaves! The *Hedyotis cærulea* was surprisingly large and fresh, in bloom, looking as much whiter than usual as late snows do. I thought they must be a variety. And on a sand-bar by the brook, *Oxyria digyna*, the very pretty mountain sorrel, apparently in

prime.[1] Apparently *Viola blanda*, as well as wool-grass, in the meadow, and apparently *Aster prenanthes* and *Juncus filiformis;* also rhodora, fetid currant, amelanchier (variety *oligocarpa*), trientalis, mountain maple, tree-cranberry with green fruit, *Aster acuminatus*, and *Aralia nudicaulis* a salix *humilis*-like, and *Polystichum aculeatum* (? ?), and *Lycopodium annotinum* (variety).

I ascended the stream in the afternoon and got out of the ravine at its head, after dining on chiogenes tea, which plant I could gather without moving from my log seat. We liked it so well that Blake gathered a parcel to carry home. In most places it was scarcely practicable to get out of the ravine on either side on account of precipices. I judged it to be one thousand or fifteen hundred feet deep, but with care you could ascend by some slides. I found that we might have camped in the scrub firs above the edge of the ravine, though it would have been cold and windy and comparatively unpleasant there, for we should have been most of the time in a cloud.

The dense patches of dwarf fir and spruce scarcely rose above the rocks which they concealed, and you would often think the trees not more than a foot or two deep, — as, indeed, they might not be generally, — but, searching within, you would find hollow places six or eight feet deep between the rocks, where they filled up all level, and by clearing a space here with your hatchet you could find a shelter for your tent, and also fuel, and water was close by above the head of the ravine. Nevertheless, at a glance, looking over, or even walking

[1] Seen in Kane's expedition by Hans, etc., at the furthest north point, or 80°+.

over, this dense shrubbery, you would have thought it nowhere more than a foot or two deep, and the trees at most only an inch or two in diameter; but by searching you would find deep hollow places in it, as I have said, where the firs were from six to ten inches in diameter. The strong wind and the snow are said to flatten these trees down thus. Such a shrubbery would begin with a thin and shallow but dense edge of spruce, not more than a foot thick, like moss upon a rock, on which you could walk, but in many places in the middle of it, though its surface was of a uniform slope, it would be found to be six or eight feet deep. So that these very thickets of which the traveller complains afford at the same time an indispensable shelter. I noticed that this shrubbery just above the ravine, as well as in it, was principally fir, while the yet more dwarfish and prostrate portion on the edge was spruce.

Returning, I sprained my ankle in jumping down the brook, so that I could not sleep that night, nor walk the next day.[1] We had commonly clouds above and below us, though it was clear where we were. These clouds commonly reached about down to the edge of the ravine.

The black flies, which pestered us till into evening, were of various sizes, the largest more than an eighth of an inch long. There were scarcely any mosquitoes here, it was so cool.

[1] [He had found the *Arnica mollis* the day before (*see ante*, pp. 24 and 27), not at the time of spraining his foot, as Emerson has it in his Biographical Sketch. Channing's account of the incident (p. 44) is correct.]

A small owl came in the evening and sat within twelve feet of us, turning its head this way and that and peering at us inquisitively. It was apparently a screech owl.[1]

July 10. *Saturday.* Wentworth says he once collected one hundred pounds of spruce gum and sold it at Biddeford for forty cents per pound. Says there are "sable lines" about here. They trap them, but rarely see them. His neighbor, who lives on the hill behind where we camped on the 6th, has four hours more sun than he. He can, accordingly, make hay better, but W. beats him in corn. The days are about forty minutes longer on top of Mt. Washington than at seashore, according to guide-book. The sun set to us here at least an hour earlier than usual.

This ravine at the bottom of which we were, looking westward up it, had a rim somewhat like that of the crater of a volcano. The head of it bore from camp about N. 65° W., looking nearer than it was; the highest rock, with the outline of a face on it on the south rim, S. 32° W.; a very steep cliff on the opposite side, N. 20° W.; and over the last we judged was the summit of Mt. Washington. As I understood Wentworth, this was in Pingree's Grant; the Glen House in Pinkham's Grant. To-day and yesterday clouds were continually drifting over the summit, commonly extending about down to the edge of the ravine. When we looked up that way, the black patch made by our fire looked like a shadow on the mountainside.

[1] Or *Acadica*? ? Saw-whet?

When I tasted the water under the snow arch the day before, I was disappointed at its warmth, though it was in fact melted snow; but half a mile lower it tasted colder. Probably, the ice being cooled by the neighborhood of the snow, it seemed thus warmer by contrast.

The only animals we saw about our camp were a few red squirrels. W. said there were striped ones about the mountains. The *Fringilla hyemalis* was most common in the upper part of the ravine, and I saw a large bird of prey, perhaps an eagle, sailing over the head of the ravine. The wood thrush and veery sang regularly, especially morning and evening. But, above all, the peculiar and memorable songster was that Monadnock-like one, keeping up an exceedingly brisk and lively strain. It was remarkable for its incessant twittering flow. Yet we never got sight of the bird, at least while singing, so that I could not identify it, and my lameness prevented my pursuing it. I heard it afterward, even in the Franconia Notch. It was surprising for its steady and uninterrupted flow, for when one stopped, another appeared to take up the strain. It reminded me of a fine corkscrew stream issuing with incessant lisping tinkle from a cork, flowing rapidly, and I said that he had pulled out the spile and left it running.[1] That was the rhythm, but with a sharper tinkle of course. It had no more variety than that, but it was more remarkable for its continuance and monotonousness than any bird's note I ever heard. It evidently belongs only to cool mountainsides, high up amid the fir and spruce. I saw once flitting through the fir-tops restlessly a small white

[1] [He seems to be describing the song of the winter wren.]

and dark bird, sylvia-like, which may have been it. Sometimes they appeared to be attracted by our smoke. The note was so incessant that at length you only noticed when it ceased.

The black flies were of various sizes here, much larger than I noticed in Maine. They compelled me most of the time to sit in the smoke, which I preferred to wearing a veil. They lie along your forehead in a line, where your hat touches it, or behind your ears, or about your throat (if not protected by a beard), or into the rims of the eyes, or between the knuckles, and there suck till they are crushed. But fortunately they do not last far into the evening, and a wind or a fog disperses them. I did not mind them much, but I noticed that men working on the highway made a fire to keep them off. I find many of them accidentally pressed in my botany and plant book. A botanist's books, if he has ever visited the primitive northern woods, will be pretty sure to contain these specimens of the black fly. Anything but mosquitoes by night. Plenty of fly-blowing flies, but I saw no ants in the dead wood; some spiders.

In the afternoon, Hoar, Blake, and Brown ascended the slide on the south to the highest rock. They were more than an hour getting up, but we heard them shout distinctly from the top. Hoar found near the edge of the ravine there, between the snow there and edge, *Rhododendron Lapponicum*, some time out of bloom,[1] growing in the midst of empetrum and moss; *Arctostaphylos alpina*, going to seed; *Polygonum viviparum*, in prime;[2]

[1] According to Durand, at 68° in Greenland.

[2] According to Durand, at all Kane's stations.

and *Salix herbacea*,[1] a pretty, trailing, roundish-leaved willow, going to seed, but apparently not so early as the *S. Uva-ursi*.

July 11. *Sunday*. Mizzling weather. Were visited by three men from Glen House, who thought it was well named "*Tucker's* Ravine," because it tuckered a man out to get to it!

It rained hard all Sunday night, wetting us but little, however. One of the slender spruce trees by our camp, which we cut down, though it looked young and thrifty, being twenty-eight feet high and only six and a half inches in diameter, had about eighty rings, and the firs were at least as old.

Wentworth said that he had five hundred acres, and would sell the whole with buildings for $2000. He knew a dead log on the fire to be spruce, and not fir, because the stubs of the lower part slanted downward, and also by its "straight rift." He called a rotten cane "dozy." After some observation I concluded that it was true that the *base* of the lower limbs of the spruce slanted downward more generally than those of the fir.

July 12. *Monday*. It having cleared up, we shouldered our packs and commenced our descent, by a path about two and a half or three miles to carriage-road, not descending a great deal.

The prevailing under-plants at first, as we descended, were *Oxalis Acetosella* (abundantly in bloom), *Cornus Canadensis*, *Clintonia borealis*, chiogenes, *Vaccinium*

[1] According to Durand, at 73° in Greenland.

Canadense, gold-thread, *Listera cordata*, *Smilacina bifolia*. *Solidago thyrsoidea*, large and prevalent, on more open and grassy parts, from top of ravine to base of mountain, where it was in prime, three feet high and spikes eighteen inches long. Trees, at first, fir and spruce; then canoe birches [1] increased, and after two miles yellow birch began. Half-way down the mountain, on the road, saw a whiteweed and one *Alsine Grœnlandica*. It [is] surprising how much of that white froth, the nidus of an insect, there was on the grass and weeds on and about the mountains. They were white with it. *Carex trisperma* (?), three-quarters down. Hear the oven-bird near base. Dined by Peabody River, three quarters of a mile south of Glen House. Found *Lonicera ciliata* in fruit there [2] and saw a little white pine, and *Alnus incana* was common, and that large, fragrant *Aster macrophyllus* (?) was budded.

I had noticed that the trees at the ravine camp — fir and spruce — did not stand firmly. Two or three of us could have pulled over one thirty feet high and six or seven inches thick. They were easily rocked, lifting the horizontal roots each time, which reminded me of what is said about the Indians sometimes bending over a young tree, burying a chief under its roots, and letting it spring back for his monument and protection. W. said they had found the fir the best material for bridge planking in his town, outlasting other woods!

In the afternoon we rode along, three of us, northward

[1] Oakes says the white birch (here, meaning the canoe) come in after a burning.

[2] Found in Essex woods.

and northwestward on our way round the mountains, going through Gorham. We camped about a mile and a half west of Gorham, by the roadside, on the bank of Moose River.

July 13. *Tuesday.* This morning it rained, keeping us in camp till near noon, for we did not wish to lose the view of the mountains as we rode along.

We dined at Wood's tavern in Randolph, just over Randolph Hill, and here had a pretty good view of Madison and Jefferson, which rose from just south the stream there, but a cloud rested on the summits most of the time.

As we rode along in the afternoon, I noticed that when finally it began to rain hard, the clouds settling down, we had our first distinct view of the mountain outline for a short time.

Wood said they had no spruce but white spruce there, though I called it black, and that they had no white pine nor oak.

It rained steadily and soakingly the rest of the afternoon, as we kept on through Randolph and Kilkenny and Jefferson Hill, so that we had no clear view of the mountains.

We put up at a store just opposite the town hall on Jefferson Hill. It here cleared up at sunset, after two days' rain, and we had a fine view of the mountains, repaying us for our journey and wetting, Mt. Washington being some thirteen miles distant southeasterly. Southwestward we looked down over a very extensive, uninterrupted, and level-looking forest, which our host said

was very valuable on account of its white pine, their most valuable land, indeed. Over this the fog clouds were rolling beneath us, and a splendid but cloudy sunset was preparing for us in the west. By going still higher up the hill, in the wet grass north of the town house, we could see the whole White Mountain range from Madison to Lafayette.

The alpine, or rocky, portion of Mt. Washington and its neighbors was a dark chocolate-brown, the extreme summits being dark topped or edged, — almost invariably this dark saddle on the top, — and, as the sun got lower, a very distinct brilliant and beautiful green, as of a thick mantle, was reflected from the vegetation in the ravines, as from the fold of a mantle, and on the lower parts of the mountains. They were chiefly Washington and the high northern peaks that we attended to. The waifs of fog-like cloud skirting the sides of Cherry Mountain and Mt. Deception in the south had the appearance of rocks, and gave to the mountainsides a precipitous look. I saw a bright streak looking like snow, a narrow bright ribbon where the source of the Ammonoosuc, swollen by the rain, leaped down the side of Mt. Washington from the Lake of the Clouds. The shadows on Lafayette betrayed ridges running toward us. That brilliant green on the northern mountains was reflected but a moment or two, for the atmosphere at once became too misty. It several times disappeared and was then brought out again with wonderful brilliancy, as it were an invisible writing, or a fluid which required to be held to the sun to be brought out.

After the sun set to us, the bare summits were of a

delicate rosaceous color, passing through violet into the deep dark-blue or purple of the night which already invested their lower parts, for this night-shadow was wonderfully blue, reminding me of the blue shadows on snow. There was an afterglow in which these tints and variations were repeated. It was the grandest mountain view I ever got. In the meanwhile, white clouds were gathering again about the summits, first about the highest, appearing to form there, but sometimes to send off an emissary to initiate a cloud upon a neighboring peak. You could tell little about the comparative distance of a cloud and a peak till you saw that the former actually impinged on the latter. First Washington, then Adams, then Jefferson put on their caps, and you saw the latter, as it were, send off one small nucleus to gather round the head of Madison.

This was the best point from which to observe these effects that we *saw* in our journey, but it appeared to me that from a hill a few miles further westward, perhaps in Whitefield, the view might be even finer. I made the accompanying two sketches of the mountain outline here, as far south only as what the landlord called Mt. Pleasant, the route from the Notch house being visible no further.

View of White Mountains *proper* from town house and store in Jefferson. Other mountains and Franconia Mountains further to the right. N. B. — Oakes puts Jefferson next to Washington, but makes it lower than the third.

This was said to be a fine farming town. I heard the ring of toads and saw a remarkable abundance of butter-

cup (the tall) yellowing the fields in this town and the next, somewhat springlike.

July 14. *Wednesday.* This forenoon we rode on through Whitefield to Bethlehem, clouds for the most part concealing the higher mountains. Found the *Geum strictum* in bloom in Whitefield; also common flax by a house. Got another fine view of the mountains — the higher ones much more distant than before — from a hill just south of the public house in Bethlehem, but might have got a better view from a higher hill a little more east, which one said was the highest land between the Green and the White Mountains, of course on that line. Saw the Stratford Peaks, thirty or forty miles north, and many mountains east of them. Climbed the long hill from Franconia to the Notch, passed the Profile House, and camped half a mile up the side of Lafayette.

Loudon says of the *Vaccinium uliginosum* that it is "taller than the common bilberry," *i. e. Vaccinium Myrtillus*, and is "a shrub about 2 ft. high; a native of Sweden, Germany, Siberia, Switzerland, Savoy, Scotland, and the north of England; as well as in the more northern parts of America, and on its west coast; and on the island of Sitcha, and in the north of Asia, in marshy mountain heaths and alpine bogs." High on the mountains in Scotland. "It is said to cover extensive tracts of land on the west coast of Greenland, along with *Andromeda tetragona*. . . . The berries are agreeable, but inferior in flavor to those of *V. Myrtillus:* eaten in large quantities, they occasion giddiness, and a slight headache." Called "the bog Whortleberry, or great Bilberry."

Vaccinium angustifolium Ait. "Berries large, and known by the name of bluets. . . . A shrub, nearly 2 ft. high; a native of Canada, about Hudson's Bay and Labrador; and of the high alpine woods of the Rocky Mountains, from the Atlantic to the Pacific. . . . The fruit is large, globose, blackish purple," highly esteemed.

Vaccinium Vitis-Idæa. "The berries of this plant form an important article of commerce in the seaports bordering the Gulf of Bothnia, whence they are sent to the south of Europe along with cranberries." "Mount Ida Whortleberry, or Cowberry."

Vaccinium Oxycoccus. Bankers in Russia whiten silver money by boiling it in their juice. "In Russia, and in some parts of Sweden, the long filiform shoots of the oxycoccus are collected in spring, after most of the leaves have dropped off, and are dried, and twisted into ropes, which are used to tie on the thatch of houses, and even for harnessing horses."

Cassiope hypnoides. "A native of Lapland, Denmark, and Siberia, on the mountains, where it covers whole tracts of land; and on the northwest coast of North America."

Phyllodoce taxifolia. "A native of Europe, North America, and Asia. In Europe: in Scotland on dry heathy moors, rare;" etc., etc. Cultivated in British gardens.

Arctostaphylos Uva-Ursi. "In Sweden, Russia, and America, they [the berries] form a principal part of the food of bears."

Arctostaphylos alpina. "Native of Denmark, Switzerland, Dauphiné, Savoy, Siberia, etc." Berries scarcely

edible. According to Linnæus very common about the White Sea.

(Pursh says of the *Chiogenes hispidulum* that it is growing always amidst sphagnum.)

Rhododendron Lapponicum. "A native of the arctic regions of Europe, Asia, and North America, where it forms a procumbent shrub, flowering in July."

Salix Urva-ursi Pursh. "A native of Labrador." His (Loudon's) leaves are blunt-obovate!

S. herbacea L. "A native of Britain on the Welsh and Highland Mountains." "In the *Companion to the Botanical Magazine*, it is stated that S. herbacea exceeds in the elevation of its habitat every other shrub in Britain." "S. herbacea is the least of British willows, and according to Sir J. E. Smith, the least of all shrubs. Dr. Clarke, in his Scandinavia, calls it a perfect tree in miniature; so small that it may be taken up, and root, trunk, and branches, spread out in a small pocket-book." But it has a considerable prostrate stem and root. Leaves used for tanning in Iceland.

S. repens (of Linnæus) has in plate pointed (!) lanceolate leaves, which Loudon says are from one quarter to three quarters of an inch long, while the plant rises "only a finger's length"! Can it be mine?

Loiseleuria procumbens. "Plentiful on the tops of mountains in Scotland."

Alnus viridis D. C. Belongs to the continent of Europe.

Empetrum nigrum. The north of Europe and of Asia, abundant in Scotland. "The Scotch Highlanders and Russian peasants eat the berries." One of the

plants that would prevail in England with ling, etc., if let alone, or ground not cultivated.

Willey says of Jackson, "The great number of sheep scattered upon the mountains make it the principal place of resort for what bears and wolves are yet left among these hills." Wentworth said that he had trapped and killed a number of them. They killed many of his sheep and calves, and destroyed much of his corn when in the milk, close to his house. A sheep could run faster than a bear, but was not so long-winded, especially going up a mountainside. The bear, when pursued, would take directly to some distant and impenetrable thicket, as these dark fir thickets on the mountainside. He once found some young bears on a nest made of small dry sticks collected under a ledge, and raising them five or six inches from the ground. He carried home the young and reared them. The voice of a bear was like that of a woman in distress. It was in Gilead, the first town (in Maine) northeast from Jackson, that Bean killed his bear, thrusting his arm down her throat.

July 15. *Thursday.* Continued the ascent of Lafayette, also called the Great Haystack. It is perhaps three and a half miles from the road to the top by path along winding ridge.

At about a mile and a half up by path, the spruce began to be small. Saw there a silent bird, dark slate and blackish above, especially head, with a white line over the brows, then dark slate next beneath, white

throat and reddish belly, black bill. A little like a nuthatch. Also saw an *F. hyemalis* on top of a dead tree. The wood was about all spruce here, twenty feet high, together with *Vaccinium Canadense*, lambkill in bloom, mountain-ash, *Viburnum nudum*, rhodora, *Amelanchier oligocarpa*, nemopanthes. As I looked down into some very broad and deep ravines from this point, their sides appeared to be covered chiefly with spruce, with a few bodkin points of fir here and there (had seen two days before some very handsome firs on low ground which were actually concave on sides of cone), while the narrow bottom or middle of the ravine, as far up and down as trees reached, where, of course, there was most water, was almost exclusively hardwood, apparently birch chiefly.

As we proceeded, the number of firs began to increase, and the spruce to diminish, till, at about two miles perhaps, the wood was almost pure fir about fourteen feet high; but this suddenly ceased at about half a mile further and gave place to a very dwarfish fir, and to spruce again, the latter of a very dwarfish, procumbent form, dense and flat, one to two feet high, which crept yet higher up the mountain than the fir, — over the rocks beyond the edge of the fir, — and with this spruce was mixed *Empetrum nigrum*, dense and matted on the rocks, partly dead, with berries already blackening, also *Vaccinium uliginosum*. Though the edges all around and the greater part of such a thicket high up the otherwise bare rocks might be spruce, yet the deeper hollows between the rocks, in the midst, would invariably be

filled with fir, rising only to the same level, but much larger round. These firs especially made the stag-horns when dead.

The spruce was mostly procumbent at that height, but the fir upright, though flat-topped. In short, spruce gave place to fir from a mile and a half to a mile below the top, — so you may say firs were the highest trees, — and then succeeded to it in a very dwarfish and procumbent form yet higher up.

At about one mile or three quarters below the summit, just above the limit of trees, we came to a little pond, maybe of a quarter of an acre (with a yet smaller one near by), the source of one head of the Pemigewasset, in which grew a great many yellow lilies (*Nuphar advena*) and I think a potamogeton. In the flat, dryish bog by its shore, I noticed the *Empetrum nigrum* (1), ledum (2), *Vaccinium Oxycoccus*, *Smilacina trifolia*, *Kalmia glauca* (3) (in bloom still), *Andromeda calyculata* (4) (and I think *Polifolia ? ?*), *Eriophorum vaginatum*, *Vaccinium uliginosum* (5), *Juncus filiformis*, four kinds of sedge (*e. g. Carex pauciflora ?*), *C. irrigua* with dangling spikes, and a *C. lupulina*-like, and the *Scirpus cæspitosus* (?) of Mt. Washington, brown lichens (*q. v.*), and cladonias, all low and in a moss-like bed in the moss of the bog; also rhodora of good size. 1, 2, 3, 4, and 5 were quite dwarfish. The outlet of the pond was considerable, but soon lost beneath the rocks. A willow, *rostrata*-like but not downy, grew there. In the dwarf

fir thickets above and below this pond, I saw the most beautiful linnæas that I ever saw. They grew quite densely, full of rose-purple flowers, — deeper reddish-purple than ours, which are pale, — perhaps nodding over the brink of a spring, altogether the fairest mountain flowers I saw, lining the side of the narrow horse-track through the fir scrub. As you walk, you overlook the top of this thicket on each side. There also grew near that pond red cherry, *Aster prenanthes* (??) and common rue.

We saw a line of fog over the Connecticut Valley. Found near summit apparently the *Vaccinium angustifolium* of Aitman (variety of *Vaccinium Pennsylvanicum*, Gray), bluets, and a broad-leaved vaccinium lower down (*q. v.*). Just below top, reclined on a dense bed of *Salix Uva-ursi*, five feet in diameter by four or five inches deep, a good spot to sit on, mixed with a rush, amid rocks. This willow was generally showing its down.

We had fine weather on this mountain, and from the summit a good view of Mt. Washington and the rest, though it was a little hazy in the horizon. It was a wild mountain and forest scene from south-southeast round easterwardly to north-northeast. On the northwest the country was half cleared, as from Monadnock, — the leopard-spotted land. I saw, about west-northwest, a large *Green* Mountain, perhaps Mansfield Mountain, though the compass was affected here.

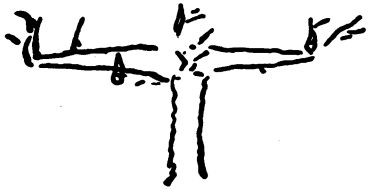
The *Carex scirpoidea* (?) grew at top, and it was surprising how many large bees, wasps, butterflies, and other insects were hovering and fluttering about the very

apex, though not particularly below. What attracts them to such a locality [1]

Heard one white-throated sparrow above the trees, and also saw a little bird by the pond. Think I heard a song sparrow about latter place. Saw a toad near limit of trees, and many pollywogs in the pond above trees.

Boiled tea for our dinner by the little pond, the head of the Pemigewasset. Saw tracks in the muddy bog by the pond-side, shaped somewhat like a small human foot *sometimes*, perhaps made by a bear.

We made our fire on the moss and lichens, by a rock, amid the shallow fir and spruce, burning the dead fir twigs, or "deer's-horns." I cut off a flourishing fir three feet high and not flattened at top yet. This was one and a quarter inches in diameter and had thirty-four rings. One, also flourishing, fifteen inches high, had twelve rings at ground. One, a dead one, was twenty-nine inches in circumference, and at four feet from ground branched horizontally as much as five feet each way, making a flat top, curving upward again into stag-horns, with branches very large and stout at base, thus:



Another fir, close by and dead, was thirty inches in circumference at ground and only half an inch in diameter at four and a half feet. Another fir, three feet high, fresh and vigorous, without a flat

[1] In an account of C. Piazzi Smyth's scientific mission under the English Government to the Peak of Teneriffe, in 1856, it is said,

top as yet, had its woody part an inch and an eighth thick (or diameter) at base (the bark being one eighth inch thick) and sixty-one rings. There was no sign of decay, though it was, as usual, mossy, or covered with lichens.

I cut off at ground one of the little procumbent spruce trees, which spread much like a juniper, but not curving upward. This rose about nine inches above the ground, but I could not count the rings, they were so fine. (*Vide* piece.) The smallest diameter of the *wood* is forty-one eightieths of an inch. The number of rings, as near as I can count with a microscope, taking much pains, is about seventy, and on one side these are included within a radius of nine fortieths of an inch, of which a little more than half is heart-wood, or each layer on this side is less than one three-hundredth of an inch thick. The bark was three fortieths of an inch thick. It was quite round and easy to cut, it was so fresh.

If the fir thirty inches in circumference grew no faster than that an inch and an eighth in diameter, then it was about five hundred and forty-nine years old. If as fast as the *little* spruce, it would be nearly fourteen hundred years old.

When half-way down the mountain, amid the spruce,

"In the hollow of this crater [the topmost] 12,200 feet above the sea level, though at a lesser altitude they had left all signs of animal life, they found a population of bees, flies, spiders, as well as swallows and linnets — the birds and insects flying about in numbers."

And of a lower altitude, speaking of the flowers, it is said that during the early summer "the townspeople [of Orotava] find it worth their while to pack their hives of bees on mules and bring them to these upper regions to gather honey from the myriads of mountain flowers."

we saw two pine grosbeaks, male and female, close by the path, and looked for a nest, but in vain. They were remarkably tame, and the male a brilliant red orange, — neck, head, breast beneath, and rump, — blackish wings and tail, with two white bars on wings. (Female, yellowish.) The male flew nearer inquisitively, uttering a low twitter, and perched fearlessly within four feet of us, eying us and pluming himself and plucking and eating the leaves of the *Amelanchier oligocarpa* on which he sat, for several minutes. The female, meanwhile, was a rod off. They were evidently breeding there. Yet neither Wilson nor Nuttall speak of their breeding in the United States.

At the base of the mountain, over the road, heard (and saw), at the same place where I heard him the evening before, a splendid rose-breasted grosbeak singing. I had before mistaken him at first for a tanager, then for a red-eye, but was not satisfied; but now, with my glass, I distinguished him sitting quite still, high above the road at the entrance of the mountain-path in the deep woods, and singing steadily for twenty minutes. It was remarkable for sitting so still and where yesterday. It was much richer and sweeter and, I think, more powerful than the note of the tanager or red-eye. It had not the hoarseness of the tanager, and more sweetness and fullness than the red-eye. Wilson does not give their breeding-place. Nuttall quotes Pennant as saying that some breed in New York but most further north. They, too, appear to breed about the White Mountains.

Heard the evergreen-forest note on the sides of the

mountains often. Heard no robins in the White Mountains.

Rode on and stopped at Morrison's (once Tilton's) Inn in West Thornton. *Heracleum lanatum* in Notch and near, very large, some seven feet high. Observed, as we rode south through Lincoln, that the face of cliffs on the hills and mountains east of the river, and even the stems of the spruce, reflected a pink light at sunset.

July 16 *Friday.* Continue on through Thornton and Campton. The butternut is first noticed in these towns, a common tree. *Urtica Canadensis* in Campton.

About the mountains were wilder and rarer birds, more or less arctic, like the vegetation. I did not even *hear* the robin on them, and when I had left them a few miles behind, it was a great change and surprise to hear the lark, the wood pewee, the robin, and the bobolink (for the last had not done singing). On the mountains, especially at Tuckerman's Ravine, the notes even of familiar birds sounded strange to me. I hardly knew the wood thrush and veery and oven-bird at first. They sing differently there.[1] In two instances, — going down the Mt. Jefferson road and along the road in the Franconia Notch, — I started an *F. hyemalis* within two feet, close to the roadside, but looked in vain for a nest. They alight and sit thus close. I doubt if the chipping sparrow is found about the mountains.

We were not troubled at all by black flies after leaving the Franconia Notch. It is apparently only in primitive

[1] [His wood thrush and veery were probably the olive-backed thrush and the Bicknell thrush.]

woods that they work. We had grand views of the Franconia Mountains from Campton, and were surprised by the regular pyramidal form of most of the peaks, including Lafayette, which we had ascended. I think that there must be some ocular illusion about this, for no such regularity was observable in ascending Lafayette. I remember that when I got more than half a mile down it I met two men walking up, and perspiring very much, one of whom asked me if a cliff within a stone's throw before them was the summit. Indeed the summit of a mountain, though it may appear thus regular at a distance, is not, after all, the easiest thing to find, even in clear weather. The surface was so irregular that you would have thought you saw the summit a dozen times before you did, and in one sense the nearer you got to it, the further off it was. I told the man it was seven or eight times as far as that. I suspect that such are the laws of light that our eye, as it were, leaps from one prominence to another, connecting them by a straight line when at a distance and making one side balance the other. So that when the summit viewed is fifty or a hundred miles distant, there is but very general and very little truth in the impression of its outline conveyed to the mind. Seen from Campton and lower, the Franconia Mountains show three or four sharp and regular blue pyramids, reminding you of pictures of the Pyramids of Egypt, though when near you suspected no such resemblance. You know from having climbed them, most of the time out of sight of the summit, that they must be at least of a scalloped outline, and it is hardly to be supposed that a nearer or more distant prominence

always is seen at a distance filling up the irregularities. It would seem as if by some law of light and vision the eye inclined to connect the base and apex of a peak in the horizon by a straight line. Twenty-five miles off, in this case, you might think that the summit was a smooth inclined plane, though you can reach it only over a succession of promontories and shelves.

Cannon Mountain on the west side of the Franconia Notch (on whose side is the profile) is the most singularly lumpish mass of any mountain I ever saw, especially so high. It looks like a behemoth or a load of hay, and suggests no such pyramid as I have described. So my theory does not quite hold together, and I would say that the eye needs only a hint of the general form and completes the outline from the slightest suggestion. The huge lumpish mass and curving outline of Cannon Mountain is yet more remarkable than the pyramidal summits of the others. It would be less remarkable in a mere hill, but it is, in fact, an elevated and bald rocky mountain.

My last view of these Franconia Mountains was from a hill in the road just this side of Plymouth village. Campton apparently affords the best views of them, and some artists board there.

Gathered the *Carex straminea* (?), some three feet high, *scoparia*-like, in Bridgewater. Nooned on west bank of the Pemigewasset, half a mile above the New Hampton covered bridge. Saw first pitch pines in New Hampton. Saw chestnuts first and frequently in Franklin and Boscawen, or about 43½° N., or half a degree higher than Emerson put it. It was quite common in

Hollis. Of oaks, I saw and heard only of the red in the north of New Hampshire. The witch-hazel was very abundant and large in the north part of New Hampshire and about the mountains.

Lodged at tavern in Franklin, west side of river.

July 17. *Saturday.* Passed by Webster's place, three miles this side of the village. Some half-dozen houses there; no store nor public buildings. A very quiet place. Road lined with elms and maples. Railroad between house and barn. The farm apparently a level and rather sandy interval, nothing particularly attractive about it. A plain public graveyard within its limits. Saw the grave of Ebenezer Webster, Esq., who died 1806, aged sixty-seven, and of Abigail, his wife, who died 1816, aged seventy-six, probably Webster's father and mother; also of other Websters, and Haddocks. Now belongs to one Fay [?] of Boston. W. was born two or more miles northwest, but house now gone.

Spent the noon on the bank of the Contoocook in the northwest corner of Concord, there a stagnant river owing to dams. Began to find raspberries ripe. Saw much elecampane by roadsides near farmhouses, all the way through New Hampshire.

Reached Weare and put up at a quiet and agreeable house, without any sign or barroom. Many Friends in this town. Know Pillsbury and Rogers here. The former lived in Henniker, next town.

July 18. *Sunday.* Keep on through New Boston, the east side of Mount Vernon, Amherst to Hollis, and noon

by a mill-pond in the woods, on Pennichook Brook, in Hollis, or three miles north of village. At evening go on to Pepperell. A marked difference when we enter Massachusetts, in roads, farms, houses, trees, fences, etc., — a great improvement, showing an older-settled country. In New Hampshire there is a greater want of shade trees, but long bleak or sunny roads from which there is no escape. What barbarians we are! The convenience of the traveller is very little consulted. He merely has the privilege of crossing somebody's farm by a particular narrow and maybe unpleasant path. The individual retains all other rights, — as to trees and fruit, and wash of the road, etc. On the other hand, these should belong to mankind inalienably. The road should be of ample width and adorned with trees expressly for the use of the traveller. There should be broad recesses in it, especially at springs and watering-places, where he can turn out and rest, or camp if he will. I feel commonly as if I were condemned to drive through somebody's cow-yard or huckleberry pasture by a narrow lane, and if I make a fire by the roadside to boil my hasty pudding, the farmer comes running over to see if I am not burning up his stuff. You are barked along through the country, from door to door.

July 19. Get home at noon.

For such an excursion as the above, carry and wear: —

Three strong check shirts.
Two pairs socks.
Neck ribbon and handkerchief.
Three pocket-handkerchiefs.

One thick waistcoat.
One thin (or half-thick) coat.
One thick coat (for mountain).
A large, broad india-rubber knapsack, with a *broad* flap.
A flannel shirt.
India-rubber coat.
Three bosoms (to go and come in).
A napkin.
Pins, needles, thread.
A blanket.
A cap to lie in at night.
Tent (or a large simple piece of india-rubber cloth for the mountain tops?).
Veil and *gloves* (or enough millinet to cover all at night).
Map and compass.
Plant book and paper.
Paper and stamps.
Botany, spy-glass, microscope.
Tape, insect-boxes.
Jack-knife and clasp-knife.
Fish-line and hooks.
Matches.
Soap and dish-cloths.
Waste-paper and twine.
Iron spoon.
Pint dipper with a pail-handle added (not to put out the fire), and perhaps a bag to carry water in.
Frying-pan, only if you ride.
Hatchet (sharp), if you ride, and perhaps in any case on mountain, with a sheath to it.
Hard-bread (sweet crackers good); a moist, sweet plum cake very good and lasting; pork, corned beef or tongue, sugar, tea or coffee, and a little salt.

As I remember, those dwarf firs on the mountains grew up straight three or four feet without diminishing much if any, and then sent forth every way very stout

branches, like bulls' horns or shorter, horizontally four or five feet each way. They were stout because they grew so slowly. Apparently they were kept flat-topped by the snow and wind. But when the surrounding trees rose above them, they, being sheltered a little, apparently sent up shoots from the horizontal limbs, which also were again more or less bent, and this added to the horn-like appearance.

We might easily have built us a shed of spruce bark at the foot of Tuckerman's Ravine. I thought that I might in a few moments strip off the bark of a spruce a little bigger than myself and seven feet long, letting it curve as it naturally would, then crawl into it and be protected against any rain. Wentworth said that he had sometimes stripped off birch bark two feet wide, and put his head through a slit in the middle, letting the ends fall down before and behind, as he walked.

The slides in Tuckerman's Ravine appeared to be a series of deep gullies side by side, where sometimes it appeared as if a very large rock had slid down without turning over, plowing this deep furrow all the way, only a few rods wide. Some of the slides were streams of rocks, a rod or more in diameter each. In some cases which I noticed, the ravine-side had evidently been undermined by water on the lower side.

It is surprising how much more bewildering is a mountain-top than a level area of the same extent. Its ridges and shelves and ravines add greatly to its apparent extent and diversity. You may be separated from your party by only stepping a rod or two out of the path. We turned off three or four rods to the pond on our way

up Lafayette, knowing that Hoar was behind, but so we lost him for three quarters of an hour and did not see him again till we reached the summit. One walking a few rods more to the right or left is not seen over the ridge of the summit, and, other things being equal, this is truer the nearer you are to the apex.

If you take one side of a rock, and your companion another, it is enough to separate you sometimes for the rest of the ascent.

On these mountain-summits, or near them, you find small and almost uninhabited ponds, apparently without fish, sources of rivers, still and cold, strange as condensed clouds, weird-like, — of which nevertheless you make tea! — surrounded by dryish bogs, in which, perchance, you may detect traces of the bear or *loup-cervier*.

We got the best views of the mountains from Conway, Jefferson, Bethlehem, and Campton. Conway combines the Italian (?) level and softness with Alpine peaks around. Jefferson offers the completest view of the range a dozen or more miles distant; the place from which to behold the manifold varying lights of departing day on the summits. Bethlehem also afforded a complete but generally more distant view of the range, and, with respect to the highest summits, more diagonal. Campton afforded a fine distant view of the pyramidal Franconia Mountains with the lumpish Profile Mountain. The last view, with its smaller intervals and partial view of the great range far in the north, was somewhat like the view from Conway.

Belknap in his "History of New Hampshire," third

volume, page 33, says: "On some mountains we find a shrubbery of hemlock [?][1] and spruce, whose branches are knit together so as to be impenetrable. The snow lodges on their tops, and a cavity is formed underneath. These are called by the Indians, Hakmantaks."

Willey quotes some one[2] as saying of the White Mountains, "Above this hedge of dwarf trees, which is about 4000 feet above the level of the sea, the scattered fir and spruce bushes, shrinking from the cold mountain wind, and clinging to the ground in sheltered hollows by the sides of the rocks, with a few similar bushes of white and yellow [?][3] birch, reach almost a thousand feet high."

Willey says that "the tops of the mountains are covered with snow from the last of October to the end of May;" that the alpine flowers spring up under the shelter of high rocks. Probably, then, they are most abundant on the southeast sides?

To sum up (omitting sedges, etc.), plants prevailed thus on Mt. Washington:—

1st. *For three quarters of a mile:* Black (?) spruce, yellow birch, hemlock, beech, canoe birch, rock maple, fir, mountain maple, red cherry, striped maple, etc.

2d. *At one and three quarters miles:* Spruce prevails, with fir, canoe and yellow birch. Rock maple, beech, and hemlock disappear. (On Lafayette, lambkill, *Viburnum nudum*, nemopanthes, mountain-ash.) Hardwoods in bottom of ravines, above and below.

[1] [The query is Thoreau's.]

[2] This is Oakes in his "Scenery," etc.

[3] [The query is Thoreau's.]

3d. *At three miles, or limit of trees* (colliers' shanty and Ravine Camp): Fir prevails, with *some spruce* and canoe birch; mountain-ash, *Alnus viridis* (in moist ravines), red cherry, mountain maple, *Salix* (*humilis*-like and *Torreyana*-like, etc.), *Vaccinium Canadense, Ribes lacustre, prostratum*, and *floridum* (?), rhodora, *Amelanchier oligocarpa*, tree-cranberry, chiogenes, *Cornus Canadensis, Oxalis Acetosella*, clintonia, gold-thread, *Listera cordata, Smilacina bifolia, Solidago thyrsoidea, Ranunculus abortivus, Platanthera obtusata* and *dilatata, Oxyria digyna, Viola blanda, Aster prenanthes* (?), *A. acuminatus, Aralia nudicaulis, Polystichum aculeatum* (?), wool-grass, etc.

4th. *Limit of trees to within one mile of top*, or as far as dwarf firs: Dwarf fir, spruce, and some canoe birch, *Vaccinium uliginosum* and *Vitis-Idæa, Salix Uva-ursi*, ledum, *Empetrum nigrum, Oxalis Acetosella, Linnæa borealis, Cornus Canadensis, Alsine Grœnlandica, Diapensia Lapponica*, gold-thread, epigæa, sorrel, *Geum radiatum* var. *Peckii, Solidago Virgaurea* var. *alpina, S. thyrsoidea* (not so high as last), hellebore, oldenlandia, clintonia, *Viola palustris*, trientalis, a little *Vaccinium angustifolium* (?), ditto of *Vaccinium cæspitosum*,[1] *Phyllodoce taxifolia, Uvularia grandiflora, Loiseleuria procumbens, Cassiope hypnoides, Rubus triflorus, Heracleum lanatum*, archangelica, *Rhododendron Lapponicum, Arctostaphylos alpina, Salix herbacea, Polygonum viviparum, Veronica alpina, Nabalus Boottii, Epilobium alpinum, Platanthera dilatata*, common rue, *Castilleja septentrionalis, Arnica mollis, Spiræa salicifolia*,

[1] *Vide* June 14, 1859.

Salix repens,[1] *Solidago thyrsoidea*, raspberry (Hoar), *Lycopodium annotinum* and *Selago*, small fern, grass, sedges, moss and lichens.[2] (On Lafayette, *Vaccinium Oxycoccus*, *Smilacina trifolia*, *Kalmia glauca*, *Andromeda calyculata*, red cherry, yellow (water) lily, *Eriophorum vaginatum*.)

5th. *Within one mile of top: Potentilla tridentata*, a very little fir, spruce, and canoe birch, one mountain-ash, *Alsine Grœnlandica*, diapensia, *Vaccinium Vitis-Idœa*, gold-thread, *Lycopodium annotinum* and *Selago*, sorrel, *Silene acaulis*, *Solidago Virgaurea* var. *alpina*, hellebore, oldenlandia, *Lonicera cœrulea*, clintonia, *Viola palustris*, trientalis, *Vaccinium angustifolium* (?), a little fern, *Geum radiatum* var. *Peckii*, sedges, rush, moss, and lichens, and probably more of the last list.

6th. At apex: Sedge, moss, and lichens, and a little alsine, diapensia, *Solidago Virgaurea* var. *alpina* (?), etc.

The 2d may be called the Spruce Zone; 3d, the Fir Zone; 4th, the Shrub, or Berry, Zone; 5th, the Cinquefoil, or Sedge, Zone; 6th, the Lichen, or Cloud, Zone.

Durand in Kane (page 444, 2d vol.) thinks that plants suffer more in alpine regions than in the polar zone. Among authorities on northern plants, names E. Meyer's "Plantæ Labradoricæ" (1830) and Giesecke's list of Greenland plants in Brewster's Edinburgh Encyclopedia (1832).

It is remarkable that what you may call trees on the White Mountains, *i. e.* the forests, cease abruptly with

[1] And apparently *S. phylicifolia* (?). *Vide* Sept. 21.

[2] *Vide* Sept. 21.

those about a dozen feet high, and then succeeds a distinct kind of growth, quite dwarfish and flattened and confined almost entirely to fir and spruce, as if it marked the limit of *almost* perpetual snow, as if it indicated a zone where the trees were peculiarly oppressed by the snow, cold, wind, etc. The transition from these flattened firs and spruces to shrubless rock is not nearly so abrupt as from upright or slender trees to these dwarfed thickets.

July 21. *Wednesday.* CONCORD. P. M.—To Walden, with E. Bartlett and E. Emerson.

The former wished to show me what he thought an owl's nest he had found. Near it, in Abel Brooks's woodlot, heard a note and saw a small hawk fly over. It was the nest of this bird. Saw several of the young flitting about and occasionally an old bird. The nest was in a middling-sized white pine, some twenty feet from the ground, resting on two limbs close to the main stem, on the south side of it. It was quite solid, composed entirely of twigs about as big round as a pipe-stem and less; was some fifteen inches in diameter and one inch deep, or nearly flat, and perhaps five inches thick. It was very much dirtied on the sides by the droppings of the young. As we were standing about the tree, we heard again the note of a young one approaching. We dropped upon the ground, and it alighted on the edge of the nest; another alighted near by, and a third a little further off. The young were apparently as big as the old, but still lingered about the nest and returned to it. I could hear them coming some distance off. Their note was a kind

of peeping squeal, which you might at first suspect to be made by a jay; not very loud, but as if to attract the old and reveal their whereabouts. The note of the old bird, which occasionally dashed past, was somewhat like that of the marsh hawk or pigeon woodpecker, a cackling or clattering sound, chiding us. The old bird was anxious about her inexperienced young, and was trying to get them off. At length she dashed close past us, and appeared to fairly strike one of the young, knocking him off his perch, and he soon followed her off. I saw the remains of several birds lying about in that neighborhood, and saw and heard again the young and old thereabouts for several days thereafter. A young man killed one of the young hawks, and I saw it. It was the *Falco fuscus*, the American brown or slate-colored hawk. Its length was thirteen inches; alar extent, twenty-three. The tail reached two or more inches beyond the closed wings. Nuttall says the upper parts are "a deep slate-color" (these were very dark brown); also that the nest is yet unknown. But Wilson describes his *F. velox* (which is the same as Nuttall's *F. fuscus*) as "whole upper parts very dark brown," but legs, greenish-yellow (these were yellow). The toes had the peculiar pendulous lobes which W. refers to. As I saw it in the woods, I was struck by its dark color above, its tawny throat and breast, brown-spotted, its clean, slender, long yellow legs, feathered but little below the knee, its white vent, its wings distinctly and rather finely dark-barred beneath, short, black, much curved bill, and slender black sharp claws. Its tail with a dark bar near edge beneath. In hand I found it had the white spots on scapulars of

the *F. fuscus*, and had not the white bars on tail of the *F. Pennsylvanicus*. It also had the fine sharp shin.[1]

But what then is my hawk killed by Farrar, with so stout a leg? Had that any white bars on tail?[2]

July 22. The nest of the marsh hawk is empty. It has probably flown. C. and I took refuge from a shower under our boat at Clamshell; staid an hour at least. A thunderbolt fell close by. A mole ran under the boat. The wind canted round as usual (is not this owing to the circular manner of storms?) more easterly, and compelled us to turn the boat over. Left a little too soon, but enjoyed a splendid rainbow for half an hour.

July 23. *Neottia gracilis*, how long?

July 26. Button-bush in prime. Edward Bartlett shows me a nest in the Agricultural ground which had four eggs, yet pretty fresh, but the bird has now deserted it. (*Vide* one.) It is like Farmer's seringo. It is a broad egg, white with large reddish and purplish brown spots chiefly about large end. The nest is small and deep and low in the grass of this pasture. (*Vide* nest out of order.) Could not see the bird; only saw bay-wings and huckleberry-birds. I suspect it may be the *Fringilla passerina?* He says the bird had a clear yellowish-white breast!

July 28. P. M. — To Conantum.

From wall corner saw a pinkish patch on side-hill west

[1] *Vide* Aug. 29th.

[2] *Vide* Aug. 29th.

of Baker Farm, which turned out to be epilobium, a rod across. Through the glass it was as fine as a moss, but with the naked eye it might have been mistaken for a dead pine bough. This pink flower was distinguished perhaps three quarters of a mile.[1]

Heard a kingfisher, which had been hovering over the river, plunge forty rods off.

The under sides of maples are very bright and conspicuous nowadays as you walk, also of the curled [?] panicled andromeda leaves. Some grape leaves, also, are blown up.

July 29. P. M. — To Pine Hill, looking for the *Vaccinium Pennsylvanicum* berries. I find plenty of bushes, but these bear very sparingly. They appear to bear but one or two years before they are overgrown. Also they probably love a cool atmosphere, for they bear annually on mountains, as Monadnock. Where the woods have been cut a year or two they have put forth fresh shoots of a livelier green. The *V. vacillans* berries are in dense clusters, raceme-like, as huckleberries are not.

I see nowadays young martins perched on the dead tops of high trees; also young swallows on the telegraph-wire.

In the Chinese novel "Ju-Kiao-Li, or The Two Fair Cousins," I find in a motto to a chapter (quoted): "He who aims at success should be continually on his guard against a thousand accidents. How many preparations are necessary before the sour plum begins to sweeten! . . . But if supreme happiness was to be attained in

[1] *Vide* Aug. 21.

the space of an hour, of what use would be in life the noblest sentiments?" (Page 227.) Also these verses on page 230: —

> "Nourished by the study of ten thousand different works,
> The pen in hand, one is equal to the gods.
> Let not humility take its rank amongst virtues:
> Genius never yields the palm that belongs to it."

Again, page 22, vol. ii: —

> "If the spring did not announce its reign by the return of the leaves,
> The moss, with its greenish tints, would find favor in men's eyes."

July 31. P. M. — To Flint's Pond.

I see much eriocaulon floating, with its mass of white roots uppermost, near the shore in Goose Pond. I suspect it may have been loosened up by the musquash, which either feeds on it, or merely makes its way through its dense mats. I also see small fishes, apparently shiners, four or five inches long, in this pond. Yet I have seen this almost all dried up.

I have smelled fungi in the thick woods for a week, though they are not very common. I see tobacco-pipes now in the path. You are liable to be overtaken by a thunder-shower these afternoons. The anychia already shows green seed-vessels on its lower branches. Petty morel has begun to bloom in shady swamps, how long?

Got the wood thrush's nest of June 19th (now empty). It was placed between many small upright shoots, against the main stem of the slender maple, and measures four and a half to five inches in diameter from out-

side to outside of the rim, and one and three quarters deep within. It is quite firm (except the external leaves falling off), the rim about three quarters of an inch thick, and it is composed externally of leaves, apparently chiefly chestnut, very much decayed, beneath which, in the place of the grass and stubble of which most nests are composed, are apparently the midribs of the same leaves, whose whole pulp, etc., is gone, arranged as compactly and densely (in a curving manner) as grass or stubble could be, upon a core, not of mud, but a pale-brown composition quite firm and smooth (within), looking like inside of a cocoanut-shell, and apparently composed of decayed leaf pulp (?), which the bird has perhaps mixed and cemented with its saliva. This is about a quarter of an inch thick and about as regular as a half of a cocoanut-shell. Within this, the lower part is lined with considerable rather coarse black root-fibre and a very little fine stubble. From some particles of fine white sand, etc., on the pale-brown composition of the nest, I thought it was obtained from the pond shore. This composition, viewed through a microscope, has almost a cellular structure.

II

AUGUST, 1858

(ÆT. 41)

Aug. 1. P. M. — Up Assabet.

The radical or immersed leaves of the pontederia are linear and grass-like, and I see that I have mistaken them for vallisneria just springing from the bottom. The leaves of new plants are just reaching and leaving the surface now, like spoons on the end of long handles.

Edward Bartlett and another brought me a green bittern, this year's bird, apparently full grown but not full plumaged, which they caught near the pool on A. Heywood's land behind Sleepy Hollow. They caught it in the woods on the hillside. It had not yet acquired the long feathers of the neck. The neck was bent back on itself an inch or more, — that part being bare of feathers and covered by the long feathers from above, — so that it did not appear very long until stretched out. This doubling was the usual condition and not apparent, but could be felt by the hand. So the green bitterns are leaving the nest now.

Aug. 2. P. M. — Up Assabet.

Landed at the Bath-Place and walked the length of Shad-bush Meadow. I noticed meandering down that meadow, which is now quite dry, a very broad and distinct musquash-trail, where they went and came con-

tinually when it was wet or under water in the winter or spring. These trails are often nine or ten inches wide and half a dozen deep, passing under a root and the lowest overhanging shrubs, where they glided along on their bellies underneath everything. I traced one such trail forty rods, till it ended in a large cabin three feet high, with blueberry bushes springing still from the top; and other similar trails led off from it on opposite sides. Near the cabin they had burrowed or worn them out nine or ten inches deep, as if this now deserted castle had been a place of great resort. Their skins used to be worth fifty cents apiece.

I see there what I take to be a marsh hawk of this year, hunting by itself. It has not learned to be very shy yet, so that we repeatedly get near it. What a rich brown bird! almost, methinks, with purple reflections.

What I have called the *Panicum latifolium* has now its broad leaves, striped with red, abundant under Turtle Bank, above Bath-Place.

Aug. 3. Savory-leaved aster.

Aug. 5. *Thursday.* 9.30 A. M. — Up river to Pantry Brook.

It clears up this morning after several cool, cloudy, and rainy dog-days. The wind is westerly and will probably blow us part way back. The river is unusually full for the season, and now quite smooth. The pontederia is apparently in its prime; the button-bush perhaps a little past, the upper halves of its balls in the sun looking brown generally. The late rose is still conspicuous, in

clumps advanced into the meadow here and there. See the mikania only in one or two places beginning. The white lilies are less abundant than usual, methinks, perhaps on account of the high water. The water milkweed flower is an interesting red, here and there, like roses along the shore. The gratiola begins to yellow the shore in some places, and I notice the unobtrusive red of dense fields of stachys on the flat shores. The sium has begun to lift its umbels of white flowers above most other plants. The purple utricularia tinges the pools in many places, the most common of all its tribe.

The best show of lilies is on the west side of the bay, in Cyrus Hosmer's meadow, above the willow-row. Many of them are not open at 10 o'clock A. M. I noticed one with the sepals perfectly spread flat on the water, but the petals still held together in a sharp cone, being held by the concave, slightly hooked points. Touching this with an oar, it opens quickly with a spring. The same with many others, whose sepals were less spread. Under the influence of the light and warmth, the petals elevate or expand themselves in the middle, becoming more and more convex, till at last, being released at their overlapping points, they spring open and quickly spread themselves equally, revealing their yellow stamens. How satisfactory is the fragrance of this flower! It is the emblem of purity. It reminds me of a young country maiden. It is just so simple and unproved. Wholesome as the odor of the cow. It is not a highly refined odor, but merely a fresh youthful morning sweetness. It is merely the unalloyed sweetness of the earth and the water; a fair opportunity and field for

Water-lily

life; like its petals, uncolored by any experience; a simple maiden on her way to school, her face surrounded by a white ruff. But how quickly it becomes the prey of insects!

As we paddle slowly along the edge of the pads, we can see the weeds and the bottom distinctly in the sun, in this still August air, even five or six feet deep, — the countless utricularias, potamogetons, etc., etc., and hornwort standing erect with its reddish stems. Countless schools of little minnows of various species, chubby little breams not an inch long, and lighter-colored banded minnows are steadily passing, partly concealed by the pads, and ever and anon we see the dimple where some larger pickerel has darted away, for they lie just on the outer edge of the pads.

The foliage is apparently now in the height of its beauty, this wet year, now dense enough to hide the trunks and stems. The black willows are perhaps in their best condition, — airy, rounded masses of light green rising one above another, with a few slender black stems, like umbrella handles, seen here and there in their midst, low spreading cumuli of slender falcate leaves, buttressed by smaller sallows, button-bushes, cornels, and pontederias, — like long green clouds or wreaths of vapor resting on the riverside. They scarcely leave the impression of leaves, but rather of a low, swelling, rounded bank, even as the heaviest particles of alluvium are deposited nearest the channel. It is a peculiarity of this, which I think is our most interesting willow, that you rarely see the trunk and yet the foliage is never dense. They generally line one side of the river

only, and that is the meadow, a concave, passive, female side.[1] They resound still with the sprightly twitter of the kingbird, that aerial and spirited bird hovering over them, swallow-like, which loves best, methinks, to fly where the sky is reflected beneath him. Also now from time to time you hear the chattering of young blackbirds or the *link* of bobolinks there, or see the great bittern flap slowly away. The kingbird, by his activity and lively note and his white breast, keeps the air sweet. He sits now on a dead willow twig, akin to the flecks of mackerel sky, or its reflection in the water, or the white clamshell, wrong side out, opened by a musquash, or the fine particles of white quartz that may be found in the muddy river's sand. He is here to give a voice to all these. The willow's dead twig is aerial perch enough for him. Even the swallows deign to perch on it. These willows appear to grow best on elevated sand-bars or deep sandy banks, which the stream has brought down, leaving a little meadow behind them, at some bend, often mixed with sawdust from a mill. They root themselves firmly here, and spread entirely over the sand.

The rose, which grows along with the willows and button-bushes, has a late and rare look now.

From off Rainbow Rush Shore I pluck a lily more than five inches in diameter. Its sepals and petals are long and slender or narrow (others are often short, broad, and rounded); the thin white edges of the four sepals are, as usual, or often, tinged with red. There are some twenty-five petals in about four rows. Four alternate ones of the outmost row have a reddish or

[1] *Vide* Aug. 7th and 15th.

rosaceous line along the middle between the sepals, and both the sepals and the outmost row of petals have seven or eight parallel darkish lines from base to tip. As you look down on the lily, it is a pure white star centred with yellow, — with its short central anthers orange-yellow.

The *Scirpus lacustris* and rainbow rush are still in bloom and going to seed. The first is the tule of California.

Landed at Fair Haven Pond to smell the *Aster macrophyllus*. It has a slight fragrance, somewhat like that of the Maine and northern New Hampshire one. Why has it no more in this latitude? When I first plucked it on Webster Stream I did not know but it was some fragrant garden herb. Here I can detect some faint relationship only by perseveringly smelling it.

The purple utricularia is *the* flower of the river to-day, apparently in its prime. It is very abundant, far more than any other utricularia, especially from Fair Haven Pond upward. That peculiar little bay in the pads, just below the inlet of the river, I will call Purple Utricularia Bay, from its prevalence there. I count a dozen within a square foot, one or two inches above the water, and they tinge the pads with purple for more than a dozen rods. I can distinguish their color thus far. The buds are the darkest or deepest purple. Methinks it is more abundant than usual this year.

I notice a commotion in the pads there, as of a musquash making its way along, close beneath the surface, and at its usual rate, when suddenly a snapping turtle puts its snout out, only up to the eyes. It

looks exactly like a sharp stake with two small knots on it, thus:

While passing there, I heard what I should call my night-warbler's note, and, looking up, saw the bird dropping to a bush on the hillside. Looking through the glass, I saw that it was the Maryland yellow-throat!! and it afterward flew to the button-bushes in the meadow.

I notice no polygonum out, or a little of the front-rank only. Some of the polygonums not only have leaves like a willow, especially like the *S. lucida*, but I see that their submerged leaves turn, or give place, to fibrous pink roots which might be mistaken for those of the willow.

Lily Bay is on the left, just above the narrow place in the river, which is just above Bound Rock. There are but few lilies this year, however; but if you wish to see how many there are, you must be on the side toward the sun.

Just opposite this bay, I heard a peculiar note which I thought at first might be that of a kingbird, but soon saw for the first time a wren within two or three rods perched on the tall sedge or the wool-grass and making it, — probably the short-billed marsh wren. It was peculiarly brisk and rasping, not at all musical, the rhythm something like *shar te dittle ittle ittle ittle ittle*, but the last part was drier or less liquid than this implies. It was a small bird, quite dark above and apparently plain ashy-white beneath, and held its head up when it sang, and also commonly its tail. It dropped into the deep sedge on our approach, but did not go off, as we saw by the motion of the grass; then reappeared and uttered its brisk notes quite near us, and, flying off, was lost in the sedge again.

We ate our dinner on the hill by Rice's. This forenoon there were no hayers in the meadow, but before we returned we saw many at work, for they had already cut some grass next to the upland, on the drier sides of the meadow, and we noticed where they had stuck up green bushes near the riverside to mow to.

While bathing at Rice's landing, I noticed under my arm, amid the potamogeton, a little pickerel between two and a half and three inches long, with a little silvery minnow about one inch long in his mouth. He held it by the tail, as it was jerking to and fro, and was slowly taking it in by jerks. I watched to see if he turned it, but to my surprise he at length swallowed it tail foremost, the minnow struggling to the last and going alive into his maw. Perhaps the pickerel learn by experience to turn them head downward. Thus early do these minnows fall on fate, and the pickerel too fulfill his destiny.

Several times on our return we scared up apparently two summer ducks, probably of this year, from the side of the river, first, in each case, seeing them swimming about in the pads; also, once, a great bittern, — I suspect also a this year's bird, for they are probably weaned at the same time with the green one.

Though the river was high, we pushed through many beds of potamogeton, long leafy masses, slanting downward and waving steadily in the stream, ten feet or more in length by a foot wide. In some places it looked as if the new sparganium would fairly choke up the stream.

Huckleberries are not quite yet in their prime.

Aug. 6. P. M. — Walk to Boulder Field.

The broom is quite out of bloom; probably a week or ten days. It is almost ripe, indeed. I should like to see how rapidly it spreads. The dense roundish masses, side by side, are three or four feet over and fifteen inches high. They have grown from near the ground this year. The whole clump is now about eighteen feet from north to south by twelve wide. Within a foot or two of its edge, I detect many slender little plants springing up in the grass, only three inches high, but, on digging, am surprised to find that they are two years old. They have large roots, running down straight as well as branching, much stouter than the part above ground. Thus it appears to spread slowly by the seed falling from its edge, for I detected no runners. It is associated there with indigo, which is still abundantly in bloom.

I then looked for the little groves of barberries which some two months ago I saw in the cow-dung thereabouts, but to my surprise I found some only in one spot after a long search. They appear to have generally died, perhaps dried up. These few were some two inches high; the roots yet longer, having penetrated to the soil beneath. Thus, no doubt, some of those barberry clumps are formed; but I noticed many more small barberry plants standing single, most commonly protected by a rock.

Cut a couple of those low scrub apple bushes, and found that those a foot high and as wide as high, being clipped by the cows, as a hedge with shears, were about twelve years old, but quite sound and thrifty.[1]

[1] [*Excursions*, pp. 304, 305; Riv. 374.]

If our sluggish river, choked with potamogeton, might seem to have the slow-flying bittern for its peculiar genius, it has also the sprightly and aerial kingbird to twitter over and lift our thoughts to clouds as white as its own breast.

Emerson is gone to the Adirondack country with a hunting party. Eddy says he has carried a double-barrelled gun, one side for shot, the other for ball, for Lowell killed a bear there last year. But the story on the Mill-Dam is that he has taken a gun which throws shot from one end and ball from the other!

I think that I speak impartially when I say that I have never met with a stream so suitable for boating and botanizing as the Concord, and fortunately nobody knows it. I know of reaches which a single country-seat would spoil beyond remedy, but there has not been any important change here since I can remember. The willows slumber along its shore, piled in light but low masses, even like the cumuli clouds above. We pass haymakers in every meadow, who may think that we are idlers. But Nature takes care that every nook and crevice is explored by some one. While they look after the open meadows, we farm the tract between the river's brinks and behold the shores from that side. We, too, are harvesting an annual crop with our eyes, and think you Nature is not glad to display her beauty to us?

Early in the day we see the dewdrops thickly sprinkled over the broad leaves of the potamogeton. These cover the stream so densely in some places that a web-footed bird can almost walk across on them.

Nowadays we hear the *squealing* notes of young

hawks. The kingfisher is seen hovering steadily over one spot, or hurrying away with a small fish in his mouth, sounding his alarum nevertheless. The note of the wood pewee is now more prominent, while birds generally are silent.

This is pure summer; no signs of fall in this, though I have seen some maples, as above the Assabet Spring, already prematurely reddening, owing to the water, and for some time the *Cornus sericea* has looked brownish-red.

Every board and chip cast into the river is soon occupied by one or more turtles of various sizes. The sternothærus oftenest climbs up the black willows, even three or more feet.

I hear of pickers ordered out of the huckleberry-fields, and I see stakes set up with written notices forbidding any to pick there. Some let their fields, or allow so much for the picking. *Sic transit gloria ruris.* We are not grateful enough that we have lived part of our lives before these evil days came. What becomes of the true value of country life? What if you must go to market for it? Shall things come to such a pass that the butcher commonly brings round huckleberries in his cart? It is as if the hangman were to perform the marriage ceremony, or were to preside at the communion table. Such is the inevitable tendency of *our* civilization, — to reduce huckleberries to a level with beef-steak. The butcher's item on the door is now "calf's head and huckleberries." I suspect that the inhabitants of England and of the Continent of Europe have thus lost their natural rights with the increase of population and of

monopolies. The wild fruits of the earth disappear before civilization, or are only to be found in large markets. The whole country becomes, as it were, a town or beaten common, and the fruits left are a few hips and haws.

Aug. 7. *Saturday.* P. M. — Up Assabet.

The most luxuriant groves of black willow, *as I recall them*, are on the inside curves, or on sandy capes between the river and a bay, or sandy banks parallel with the firmer shore, *e. g.* between Lee's and Fair Haven on north side, point of Fair Haven Island, opposite Clamshell and above, *just below stone bridge*, Lee Meadow or opposite house, below Nathan Barrett's at Bay, sandy bank below Dove Rock. They also grow on both sides sometimes, where the river runs straight through stagnant meadows or swamps, — *e. g.* above Hollowell Bridge, — or on one side, though straight, along the edge of a swamp, — as above Assabet Spring, — but rarely ever against a firm bank or hillside, the positive male shore, *e. g.* east shore of Fair Haven Pond, east side above railroad bridge, etc.[1] Measured the two largest of three below Dove Rock. The southernmost is three feet nine inches in circumference at ground, and it branches there. The westernmost is four feet two inches in circumference at ground and three feet two inches at three feet above ground. Or the largest is one foot and four inches in diameter at ground. They all branch at the ground, dividing within four or five feet into three or four main stems. The three here have the effect of

[1] *Vide* Aug. 15.

one tree, seen from the water, and are twenty-five feet high or more, and, all together, broader than high. They are none of them upright, but in this case, close under a higher wood of maples and swamp white oak, slant over the stream, and, taken separately or viewed from the land side, are very imperfect trees. If you stand at their base and look upward or outward, you see a great proportion of naked trunk but thinly invested with foliage even at the summit, and they are among the most unsightly trees. The lower branches slant downward from the main divisions so as commonly to rest on the water. But seen from the water side no tree of its height, methinks, so completely conceals its trunk. They meet with many hard rubs from the ice and from driftwood in freshets in the course of their lives, and whole trees are bent aside or half broken off by these causes, but they soon conceal their injuries.

The *Sternothærus odoratus* knows them well, for it climbs highest up their stems, three or four feet or more nowadays, sometimes seven or eight along the slanting branches, and is frequently caught and hung by the neck in its forks. They do not so much jump as tumble off when disturbed by a passer. The small black mud tortoise, with its muddy shell, eyes you motionless from its resting-place in a fork of the black willow. They will climb four feet up a stem not more than two inches in diameter, and yet undo all their work in an instant by tumbling off when your boat goes by. The trunk is covered with coarse, long, and thick upraised scales. It is this turtle's castle and path to heaven. He is on the upward road along the stem of the willow, and by its

dark stem it is partially concealed. Yes, the musquash and the mud tortoise and the bittern know it well.

But not these sights alone are now seen on our river, but the sprightly kingbird glances and twitters above the glossy leaves of the swamp white oak. Perchance this tree, with its leaves glossy above and whitish beneath, best expresses the life of the kingbird and is its own tree.

How long will it be after we have passed before the mud tortoise has climbed to its perch again?

The author of the Chinese novel "Ju-Kiao-Li," some eight hundred years ago, appears to have appreciated the beauty of willows. Pe, his principal character, moved out of the city late in life, to a stream bordered with willows, about twenty miles distant, in order to spend the rest of his days drinking wine and writing verses there. He describes the eyebrow of his heroine as like a willow leaf floating on the surface of the water.

In the upper part of J. Farmer's lane I find huckleberries which are distinctly pear-shaped, all of them. These and also other roundish ones near by, and apparently huckleberries generally, are dotted or apparently dusted over with a yellow dust or meal, which looks as if it could be rubbed off. Through a glass it looks like a resin which has exuded, and on the small green fruit is of a bright orange or lemon-color, like small specks of yellow lichens. It is apparently the same as that on the leaves.

Monarda fistula is now apparently in prime, four and more, eight or ten rods behind red oak on Emerson's Assabet field.

Aug. 8. P. M. — To Ledum Swamp.

I see at Clamshell Hill a yellow-browed sparrow sitting quite near on a haycock, pluming itself. Observe it a long time in all positions with my glass, within two rods. It is probably a this year's bird. I think it must be the *Fringilla passerina*, for its breast and beneath is the clear pale ochreous white which Wilson speaks of, and its wing-shoulder is distinctly yellow when not concealed in the feathers of the side. Its legs and bill, except the upper side of the upper mandible, are quite a reddish flesh-color. The yellow on its temple is quite bright, and the pale-brownish cheeks. The crown is blackish with a distinct white line along the midst. I see what I call chestnut with the black and whitish on the back and wings. It stands very upright, so that I can see all beneath. It utters no note, *i. e.* song, only a faint, short, somewhat cricket-like or *trilled* chip.

I see that handsome fine purple grass now, on Hosmer's hillside, above where he has mowed; not yet in perfection.

You see now in the meadows where the mower's scythe has cut in two the great oval and already black fruit of the skunk-cabbage, rough as a nutmeg-grater, exposing its numerous nuts. I had quite forgotten the promise of this earliest spring flower, which, deep in the grass which has sprung up around it, its own leaves for the most part decayed, unremembered by us, has been steadily maturing its fruit. How far we have wandered, in our thoughts at least, since we heard the bee humming in its spathe! I can hardly recall or believe now that for every such black and rather unsightly (?) capsule there

was a pretty freckled horn which attracted our attention in the spring. However, most of them lie so low that they escape or are not touched by the scythe.[1]

Saw yesterday a this year's (?) marsh hawk, female, flying low across the road near Hildreth's. I took it to be a young bird, it came so near and looked so fresh. It is a fine rich-brown, full-breasted bird, with a long tail. Some hens in the grass beneath were greatly alarmed and began to run and fly with a cackling to the shelter of a corn-field. They which did not see the hawk and were the last to stir expressed the most alarm. Meanwhile, the hawk sails low and steadily over the field away, not thinking of disturbing them.

I find at Ledum Swamp, near the pool, the white fringed orchis, quite abundant but past prime, only a few, yet quite fresh. It seems to belong to this sphagnous swamp and is some fifteen to twenty inches high, quite conspicuous, its white spike, amid the prevailing green. The leaves are narrow, half folded, and almost insignificant. It loves, then, these cold bogs.

The rusty wool-grass is in bloom there with very short wool. Is it ever long? The *Gaylussacia dumosa* var. *hirtella* is the prevailing low shrub, perhaps. I see one ripe berry. This is the only inedible species of *Vaccinieæ* that I know in this town.

The peculiar plants of this swamp are, then, as I re-

[1] My friends can rarely guess what fruit it is, but think of pine-apples and the like. After lying in the house a week, and being wilted and softened, on breaking it open it has an agreeable sweetish scent, perchance like a banana, and suggests that it may be edible. But a long while after slightly tasting it, it bites my palate.

member, these nine: spruce, *Andromeda Polifolia, Kalmia glauca, Ledum latifolium, Gaylussacia dumosa* var. *hirtella, Vaccinium Oxycoccus, Platanthera blephariglottis, Scheuchzeria palustris, Eriophorum vaginatum.*[1]

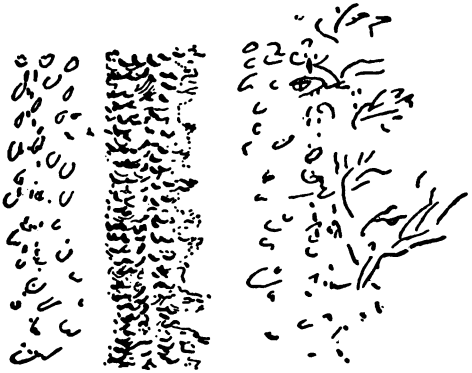
I see there, especially near the pool, tall and slender huckleberry bushes of a peculiar kind. Some are seven feet high. They are, for the most part, three or four feet high, very slender and drooping, bent like grass to one side. The berries are round and glossy-black, with resinous dots, as usual, and in flattish-topped racemes, sometimes ten or twelve in a raceme, but generally more scattered. Call it, perhaps, the tall swamp huckleberry.

The nesæa is fairly begun.

Looking north from Hubbard's Bridge about 4 P. M., the wind being southeasterly, I am struck by the varied lights of the river. The wind, which is a considerable breeze, strikes the water by a very irregular serrated edge about mid-channel, and then abruptly leaves it on a distinct and regular meandering line, about eight feet from the outer edge of the pads on the west side. The rippled portion of the river is blue, the rest smooth, silvery. Thus to my eye the river is divided into five portions, — first the weedy and padded borders, then a smooth, silvery stripe, eight or ten feet wide, and next the blue rippled portion, succeeded by the broader silver, and the pads of the eastern side. How many aspects the river wears, depending on the height of the water, the season of the year and state of vegetation, the wind, the position of the sun and condition of the heavens, etc., etc.! Apparently such is the angle at which the

[1] *Woodsia Virginica. Vide* Sept. 6th.

wind strikes the river from over the bushes that it falls about mid-channel, and then it is either obliged to leave



it at a nearly similar angle on account of the opposite shore and bushes, or, perchance, the smoothing influence of the pads is felt to some distance beyond their edges. The line which separates the smooth from the rippled portion is as distinct and continuous as that which marks the edge of the pads. I think that there is more oily matter floating on the stiller sides of the river, and this too may have something to do with the above phenomenon. Then there is the watered appearance of the surface in a shower.

Aug. 9. Edward Bartlett shows me this morning a nest which he found yesterday. It is saddled on the lowest horizontal branch of an apple tree in Abel Heywood's orchard, against a small twig, and answers to Nuttall's description of the goldfinch's nest, which it probably is. The eggs were five, pure white or with a

faint bluish-green tinge, just begun to be developed. I did not see the bird.[1]

It is but little you learn of a bird in this irregular way, — having its nest and eggs shown you. How much more suggestive the sight of the goldfinch going off on a jaunt over the hills, twittering to its plainer consort by its side!

It is surprising to what extent the world is ruled by cliques. They who constitute, or at least lead, New England or New York society, in the eyes of the world, are but a clique, a few "men of the age" and of the town, who work best in the harness provided for them. The institutions of almost all kinds are thus of a sectarian or party character. Newspapers, magazines, colleges, and all forms of government and religion express the superficial activity of a few, the mass either conforming or not attending. The newspapers have just got over that eating-fullness or dropsy which takes place with the annual commencements and addresses before the Philomathean or Alpha Beta Gamma societies. Neither they who make these addresses nor they who attend to them are representative of the latest age. The boys think that these annual recurrences are part and parcel of the annual revolution of the system. There are also regattas and fireworks and "surprise parties" and horse-shows. So that I am glad when I see or hear of a man anywhere who does not know of these things nor recognizes these particular fuglers. I was pleased to hear the other day that there were two men in Tamworth, N. H., who had been fishing for trout there ever since May; but it was a

[1] *Vide* next page but one.

serious drawback to be told that they sent their fish to Boston and so catered for the few. The editors of newspapers, the popular clergy, politicians and orators of the day and office-holders, though they may be thought to be of very different politics and religion, are essentially one and homogeneous, inasmuch as they are only the various ingredients of the froth which ever floats on the surface of society.

I see a pout this afternoon in the Assabet, lying on the bottom near the shore, evidently diseased. He permits the boat [to] come within two feet of him. Nearly half the head, from the snout backward diagonally, is covered with an inky-black kind of leprosy, like a crustaceous lichen. The long feeler on that side appears to be wasting, and there stands up straight in it, about an inch high, a little black tree-like thorn or feeler, branched at top. It moves with difficulty.

Edith Emerson gives me an *Asclepias tuberosa* from Naushon, which she thinks is now in its prime there.

It is surprising what a tissue of trifles and crudities make the daily news. For one event of interest there are nine hundred and ninety-nine insignificant, but about the same stress is laid on the last as on the first. The newspapers have just told me that the transatlantic telegraph-cable is laid. That is important, but they instantly proceed to inform me how the news was received in every larger town in the United States, — how many guns they fired, or how high they jumped, — in New York, and Milwaukee, and Sheboygan; and the boys and girls, old and young, at the corners of the streets are reading it all with glistening eyes, down to the very last

scrap, not omitting what they did at New Rochelle and Evansville. And all the speeches are reported, and some think of collecting them into a volume ! ! !

You say that you have travelled far and wide. How many men have you seen that did not belong to any sect, or party, or clique? Did you go further than letters of introduction would avail?

The goldfinch nest of this forenoon is saddled on a horizontal twig of an apple, some seven feet from ground and one third of an inch in diameter, supported on one side by a yet smaller branch, also slightly attached to another small branch. It measures three and one half inches from outside to outside, one and three quarters inside, two and one half from top to bottom, or to a little below the twig, and one and one half inside. It is a very compact, thick, and warmly lined nest, slightly incurving on the edge within. It is composed of fine shreds of bark — grape-vine and other — and one piece of twine, with, more externally, an abundance of pale-brown slender catkins of oak (?) or hickory (?), mixed with effete apple blossoms and their peduncles, showing little apples, and the petioles of apple leaves, sometimes with half-decayed leaves of this year attached, last year's heads of lespedeza, and some other heads of weeds, with a little grass stem or weed stem, all more or less disguised by a web of white spider or caterpillar silk, spread over the outside. It is thickly and very warmly lined with (apparently) short thistle-down, mixed with which you see some grape-vine bark, and the rim is composed of the same shreds of bark, catkins, and some fine fibrous stems, and two or three hairs (of

horse) mixed with wool (?); for only the hollow is lined with the looser or less tenacious thistle-down. This nest shows a good deal of art.

The mind tastes but few flavors in the course of a year. We are visited by but few thoughts which are worth entertaining, and we chew the cud of these unceasingly. What ruminant spirits we are! I remember well the flavor of that rusk which I bought in New York two or three months ago and ate in the cars for my supper. A fellow-passenger, too, pretended to praise it, and yet, O man of little faith! he took a regular supper at Springfield. They cannot make such in Boston. The mere fragrance, rumor, and reminiscence of life is all that we get, for the most part. If I am visited by a thought, I chew that cud each successive morning, as long as there is any flavor in it. Until my keepers shake down some fresh fodder. Our genius is like a brush which only once in many months is freshly dipped into the paint-pot. It becomes so dry that though we apply it incessantly, it fails to tinge our earth and sky. Applied to the same spot incessantly, it at length imparts no color to it.

Aug. 10. P. M. — To yew, etc.

It is cloudy and misty dog-day weather, with a good deal of wind, and thickening to occasional rain this afternoon. This rustling wind is agreeable, reminding me, by its unusual sound, of other and ruder seasons. The most of a storm you can get now is rather exhilarating. The grass and bushes are quite wet, and the pickers are driven from the berry-field. The rabbit's-foot clover is

very wet to walk through, holding so much water. The fine grass falls over from each side into the middle of the woodland paths and wets me through knee-high.

I see many tobacco-pipes, now perhaps in their prime, if not a little late, and hear of pine-sap. The Indian-pipe, though coming with the fungi and suggesting, no doubt, a close relation to them, — a sort of connecting link between flowers and fungi, — is a very interesting flower, and will bear a close inspection when fresh. The whole plant has a sweetish, earthy odor, though Gray says it is inodorous. I see them now on the leafy floor of this oak wood, in families of twelve to thirty sisters of various heights, — from two to eight inches, — as close together as they can stand, the youngest standing close up to the others, all with faces yet modestly turned downwards under their long hoods. Here is a family of about twenty-five within a diameter of little more than two inches, lifting the dry leaves for half their height in a cylinder about them. They generally appear bursting up through the dry leaves, which, elevated around, may serve to prop them. Springing up in the shade with so little color, they look the more fragile and delicate. They have very delicate pinkish half-naked stems with a few semitransparent crystalline-white scales for leaves, and from the sinuses at the base of the petals without (when their heads are drooping) more or less dark purple is reflected, like the purple of the arteries seen on a nude body. They appear not to flower only when upright. Gray says they are upright in fruit. They soon become black-specked, even before flowering.

Am surprised to find the yew with ripe fruit (how

long ?), — though there is a little still small and green, — where I had not detected fertile flowers. It fruits very sparingly, the berries growing singly here and there, on last year's wood, and hence four to six inches below the extremities of the upturned twigs. It is the most surprising berry that we have: first, since it is borne by an evergreen, hemlock-like bush with which we do not associate a soft and bright-colored berry, and hence its deep scarlet contrasts the more strangely with the pure, dark evergreen needles; and secondly, because of its form, so like art, and which could be easily imitated in wax, a very thick scarlet cup or mortar with a dark-purple (?) bead set at the bottom. My neighbors are not prepared to believe that such a berry grows in Concord.

I notice several of the hylodes hopping through the woods like wood frogs, far from water, this mizzling [day]. They are probably common in the woods, but not noticed, on account of their size, or not distinguished from the wood frog. I also saw a young wood frog, with the dark line through the eye, no bigger than the others. One hylodes which I bring home has a perfect cross on its back,— except one arm of it.

The wood thrush's was a peculiarly woodland nest, made solely of such materials as that unfrequented grove afforded, the refuse of the wood or shore of the pond. There was no horsehair, no twine nor paper nor other relics of art in it.

Aug. 11. P. M. — To Beck Stow's.

I see of late a good many young sparrows (and old) of

different species flitting about. That blackberry-field of Gowing's in the Great Fields, this side of his swamp, is a famous place for them. I see a dozen or more, old and young, perched on the wall. As I walk along, they fly up from the grass and alight on the wall, where they sit on the alert with outstretched necks. Nearest and unalarmed sit the huckleberry-birds; next, quite on the alert, the bay-wings, with which and further off the yellow-browed sparrows, of whom one at least has a clear yellowish breast; add to which that I heard thereabouts the seringo note. If made by this particular bird, I should infer it was *Fringilla passerina*. I still hear there at intervals the bay-wing, huckleberry-bird, and seringo.

Now is our rainy season. It has rained half the days for ten days past. Instead of dog-day clouds and mists, we have a rainy season. You must walk armed with an umbrella. It is wettest in the woods, where the air has had no chance to dry the bushes at all.

The *Myriophyllum ambiguum*, apparently variety *natans*, is now apparently in its prime. Some buds have gone to seed; others are not yet open. It is floating all over the surface of the pool, by the road, at the swamp, — long utricularia-like masses without the bladders. The emersed part, of linear or pectinate leaves, rises only about half an inch; the rest, eighteen inches more or less in length, consists of an abundance of capillary pinnate leaves, covered with slime or conferva (?) as a web. Evidently the same plant, next the shore and creeping over the mud, only two or three inches long, is without the capillary leaves, having roots instead, and appar-

ently is the variety *limosum* (?), I suspect erroneously so called.

Heard a fine, sprightly, richly warbled strain from a bird perched on the top of a bean-pole. It was at the same time novel yet familiar to me. I soon recognized it for the strain of the purple finch, which I have not heard lately. But though it appeared as large, it seemed a different-colored bird. With my glass, four rods off, I saw it to be a goldfinch. It kept repeating this warble of the purple finch for several minutes. A very surprising note to be heard now, when birds generally are so silent. Have not heard the purple finch of late. I conclude that the goldfinch is a very fine and powerful singer, and the most successful and remarkable mock ing-bird that we have. In the spring I heard it imitate the thrasher exactly, before that bird had arrived, and now it imitates the purple finch as perfectly, after the latter bird has ceased to sing! It is a surprising vocalist. It did not cease singing till I disturbed it by my nearer approach, and then it went off with its usual *mew*, succeeded by its watery twitter in its *ricochet* flight. Have they not been more common all summer than formerly?

I go along plum path behind Adolphus Clark's. This is a peculiar locality for plants. The *Desmodium Canadense* is now apparently in its prime there and very common, with its rather rich spikes of purple flowers, — the most (?) conspicuous of the desmodiums. It might be called Desmodium Path. Also the small rough sunflower (now abundant) and the common apocynum (also in bloom as well as going and gone to seed) are very common. I smell the fragrant everlasting concealed in

the higher grass and weeds there, some distance off. It reminds me of the lateness of the season. Saw the elodea (not long) and a dangle-berry ripe (not long) at Beck Stow's.

See a small variety of helianthus growing with the *divaricatus*, on the north side of Peter's path, two rods east of bars southeast of his house. It is an imperfect flower, but apparently answers best to the *H. trachelii-folius*. There is evidently a great variety in respect to form, petiole, venation, roughness, thickness, and color of the leaves of helianthuses.

Saw yesterday the *Utricularia vulgaris*, apparently in its prime, yellowing those little pools in Lincoln at the town bound by Walden. Their stems and leaves seem to half fill them. Some pools, like that at bath-place by pond in R. W. E.'s wood, will have for all vegetation only the floating immersed stems and leaves, light-brown, of this plant, without a flower, perhaps on account of shade.

The great bullfrogs, of various colors from dark brown to greenish yellow, lie out on the surface of these slimy pools or in the shallow water by the shore, motionless and philosophic. Toss a chip to one, and he will instantly leap and seize and drop it as quick. Motionless and indifferent as they appear, they are ready to leap upon their prey at any instant.

Aug. 12. When I came down-stairs this morning, it raining hard and steadily, I found an Irishman sitting with his coat on his arm in the kitchen, waiting to see me. He wanted to inquire what I thought the weather

would be to-day! I sometimes ask my aunt, and she consults the almanac. So we shirk the responsibility.

P. M. — To the Miles blueberry swamp and White Pond.

It clears up before noon and is now very warm and clear. When I look at the sparrows on the fences, yellow-browed and bay-wings, they all have their bills open and are panting with heat. Apparently the end of the very wet weather we have had about a fortnight.

At Clamshell I see more of, I think, the same clear-breasted, yellow-browed sparrows which I saw there the other day and thought the *Fringilla passerina*, and now I hear, from some thereabouts, the seringo note.

As I stand on the bank there, I find suddenly that I hear, low and steady, under all other sounds, the creak of the mole cricket by the riverside. It has a peculiarly late sound, suggestive of the progress of the year. It is the voice which comes up steadily at this season from that narrow sandy strip between the meadow and the water's edge. You might think it issued from that small frog, the only living thing you see, which sits so motionless on the sand. But the singer is wholly out of sight in his gallery under the surface. *Creak creak, creak creak, creak creak, creak creak.* It is a sound associated with the declining year and recalls the moods of that season. It is so unobtrusive yet universal a sound, so underlying the other sounds which fill the air, — the song of birds, rustling of leaves, dry hopping sound of grasshoppers, etc., — that now, in my chamber, I can hardly be sure whether I hear it still, or remember it, it so rings in my ears.

It is surprising how young birds, especially sparrows of all kinds, abound now, and bobolinks and wood pewees and kingbirds. All weeds and fences and bare trees are alive with them. The sparrows and bobolinks are seen surging over or falling behind the weeds and fences, even as grasshoppers now skip from the grass and leaves in your path.

That very handsome high-colored fine purple grass grows particularly on dry and rather unproductive soil just above the edge of the meadows, on the base of the hills, where the hayer does not deign to swing his scythe. He carefully gets the meadow-hay and the richer grass that borders it, but leaves this fine purple mist for the walker's harvest. Higher up the hill, perchance, grow blackberries and johnswort and neglected and withered and wiry June-grass. Twenty or thirty rods off it appears as a high-colored purple border above the meadow, like a berry's stain laid on close and thick, but if you pluck one plant you will be surprised to find how thin it is and how little color it has. What puny causes combine to produce such decided effects! There is ripeness in its color as in the poke stem. It grows in waste places, perhaps on the edge of blackberry-fields, a thin, fine, spreading grass, left by the mower. It oftenest grows in scattered rounded tufts a foot in diameter, especially on gentle slopes.[1]

I see a hen-harrier (female) pursued by a red-wing, etc., circling low and far off over the meadow. She is a peculiar and distinct reddish brown on the body beneath.

[1] [*Excursions*, pp. 252, 253; Riv. 309, 310.]

All farmers are complaining of the catching weather. I see some of their hay, which is spread, afloat in the meadow.

This year the fields have not yet worn a parched and withered look.

I perceive that some high blueberries have a peculiar and decided bitter taste, which makes them almost inedible. Some of the blueberries growing sparingly on recent sprouts are very large. I eat the blueberry, but I am also interested in the rich-looking glossy black choke-berries which nobody eats, but which bend down the bushes on every side, — sweetish berries with a dry, and so choking, taste. Some of the bushes are more than a dozen feet high.

The note of the wood pewee is a prominent and common one now. You see old and young together.

As I sit on the high bank overlooking White Pond, I am surprised at the number of birds about me, — wood pewees, singing so sweetly on a pine; chickadees, uttering their *phebe* notes, apparently with their young too; the pine warbler, singing; robins, restless and peeping; and a Maryland yellow-throat, hopping within a bush closely. Some boys bathing shake the whole pond. I see the undulations a third across it though they are out of sight, and, if it were smooth, might perhaps see them quite across.

Hear what I have called the alder locust (?) as I return over the causeway, and probably before this.

It is pleasant enough, for a change, to walk in the woods without a path in a wet and mizzling afternoon, as we did the 10th, winding amid the wet bushes, which

wet our legs through, and seeing ever and anon a wood frog skip over the dead and wet leaves, and the various-colored fungi, — rejoicing in fungi. (I saw some large ones, green, that afternoon.) We are glad to come to more open spaces where we can walk dry on a carpet of pine leaves.

Saw a *Viola pedata* blooming again.

Aug. 13. This month thus far has been quite rainy. It has rained more or less at least half the days. You have had to consider each afternoon whether you must not take an umbrella. It has about half the time either been dogdayish or mizzling or decided rain. It would rain five minutes and be fair the next five, and so on, alternately, a whole afternoon. The farmers have not been able to get much of their hay. On the whole it has been rather cool. It has been still decidedly summer, with some reminiscences of autumn. The last week has been the heart of the huckleberry season.

P. M. — Up Assabet.

The dullish-blue or lead-colored *Viburnum dentatum* berries are now seen, not long, overhanging the side of the river, amid cornels and willows and button-bushes. They make a dull impression, yet held close in some lights they are glossy. The umbelled fruits — viburnums and cornels, aralias, etc. — have begun.

As I am paddling up the north side above the Hemlocks, I am attracted by the singular shadows of the white lily pads on the rich-brown muddy bottom. It is remarkable how light tends to prevail over shadow there. It steals in under the densest curtain of pads

and illustrates the bottom. The shadows of these pads, seen (now at 3 P. M.) a little one side, where the water is eighteen inches or two feet deep, are rarely orbicular or entire-edged or resembling the leaf, but are more or less perfect rosettes, generally of an oval form, with five to fifteen or more regularly rounded petals, open half-way to the centre: or You cannot commonly refer the shadow to its substance but by touching the leaf with your paddle. Light knows a thousand tricks by which it prevails. Light is the rule, shadow the exception. The leaf fails to cast a shadow equal in area to itself. While it is a regular and almost solid disk, the shadow is a rosette or palmate, as if the sun, in its haste [to] illustrate every nook, shone round the shortest corner. Often if you connect the extremities of the petals, you have the general outline and size of the leaf, and the shadow is less than the substance by the amount of the openings. These petals seem to depend for their existence on the somewhat scalloped, waved, or undulating edge of the pad, and the manner in which the light is reflected from it. Generally the two sharp angles of the pad are almost entirely eroded in the shadow. The shadows, too, have a slight halo about them. Such endless and varied play of light and shadow is on the river bottom! It is protean and somewhat weird even. The shadow of the leaf might be mistaken for that of the flower. The sun playing with a lily leaf draws the outline of a lily on the bottom with its shadow.

The broad-leaved helianthus on bank opposite Assa-

bet Spring is not nearly out, though the *H. divaricatus* was abundantly out on the 11th.

I landed to get the wood pewee nest in the Lee Wood. Perhaps those woods might be called Mantatukwet's, for he says he lived at the foot of Nawshawtuct about fifty years before 1684.[1]

Hypopytis abundantly out (how long?), apparently a good while, in that long wood-path on the left side, under the oak wood, before you begin to rise, going from the river end. Very little indeed is yet erect, and that which is not is apparently as forward as the rest. Not generally quite so high as the *Monotropa uniflora* which grows with it. I see still in their midst the dry upright brown spikes of last year's seed-vessels.

The chimaphila is more of an umbel:

Where that dense young birch grove, four to eight feet high, was burned over in the spring, — I am pretty sure it was early in May, — I see now a yet more dense green crop of *Solidago altissima*, three or four feet high and budded to bloom. Where did all the seed come from? I think the burning was too late for any seed to have blown on since. Did it, then, lie in the ground so low as to escape the fire? The seed may have come from plants which grow in the old path along the fence on the west side. It is a singular fact, at any rate, that a dense grove of young white birches, covering half a dozen acres, may be burned over in May, so as to kill nearly all, and now, amid the dead brown trees, you see [a] dense green crop of *Solidago*

[1] Call it Woodis Park.

altissima covering the ground like grass, four feet high. Nature practices a rotation of crops, and always has some seed ready in the ground.

Young white maples below Dove Rock are an inch and a half high, and red maples elsewhere about one inch high.

I come to get the now empty nests of the wood pewees found June 27th. In each case, on approaching the spot, I hear the sweet note of a pewee lingering about, and this alone would have guided me within four or five rods. I do not know why they should linger near the empty nest, but perhaps they have built again near there or intend to use the same nest again (?). Their full strain is *pe-ah-ee'* (perhaps repeated), rising on the last syllable and emphasizing that, then *pe'-ee*, emphasizing the first and falling on the last, all very sweet and rather plaintive, suggesting innocence and confidence in you. In this case the bird uttered only its last strain, regularly at intervals.

These two pewee nests are remarkably alike in their position and composition and form, though half a mile apart. They are both placed on a horizontal branch of a young oak (one about fourteen, the other about eighteen, feet from ground) and three to five feet from main trunk, in a young oak wood. Both rest directly on a horizontal fork, and such is their form and composition that they have almost precisely the same color and aspect from below and from above.

The first is on a dead limb, very much exposed, is three inches in diameter outside to outside, and two inches in diameter within, the rim being about a quarter

of an inch thick, and it is now one inch deep within. Its framework is white pine needles, especially in the rim, and a very little fine grass stem, covered on the rim and all without closely with small bits of lichen (cetraria ?), slate-colored without and blackish beneath, and some brown caterpillar (?) or cocoon (?) silk with small seed-vessels in it. They are both now thin and partially open at the bottom, so that I am not sure they contain all the original lining. This one has no distinct lining, unless it is a very little green usnea amid the loose pine-needles. The lichens of the nest would readily be confounded with the lichens of the limb. Looking down on it, it is a remarkably round and neat nest.

The second nest is rather more shallow now and half an inch wider without, is lined with much more usnea (the willow down which I saw in it June 27 is gone; perhaps they cast it out in warm weather!), and shows a little of some slender brown catkin (oak ?) beneath, without.

These nests remind me of what I suppose to be the yellow-throat vireo's and hummingbird's. The lining of a nest is not in good condition — perhaps is partly gone — when the birds have done with it.

The remarkable difference between the two branches of our river, kept up down to the very junction, indicates a different geological region for their channels.

Aug. 14. P. M. — To the one-arched bridge.

Hardhacks are probably a little past prime.

Stopped by the culvert opposite the centaurea, to look at the sagittaria leaves. Perhaps this plant is in its

prime (?). Its leaves vary remarkably in form. I see, in a thick patch six or eight feet in diameter, leaves nearly a foot long of this form:

and others, as long or longer, of this form:

with all the various intermediate ones. The very narrow ones, perhaps, around the edge of the patch, being also of a darker green, are not distinguished at first, but mistaken for grass.

Suggesting to C. an Indian name for one of our localities, he thought it had too many syllables for a place so near the middle of the town, — as if the more distant and less frequented place might have a longer name, less understood and less alive in its syllables.

The Canada thistle down is now begun to fly, and I see the goldfinch upon it. *Carduelis.* Often when I watch one go off, he flies at first one way, rising and falling, as if skimming close over unseen billows, but directly makes a great circuit as if he had changed his mind, and disappears in the opposite direction, or is seen to be joined there by his mate.

We walked a little way down the bank this side the Assabet bridge. The broad-leaved panic grass, with its hairy sheaths or collars, attracts the eye now there by its perfectly fresh broad leaf. We see from time to time many bubbles rising from the sandy bottom, where it is two or more feet deep, which I suspect to come from clams there letting off air. I think I see the clams, and it is often noticed there.

I see a pickerel nearly a foot long in the deep pool under the wooden bridge this side the stone one, where it has been landlocked how long?

There is brought me this afternoon *Thalictrum Cornuti*, of which the club-shaped filaments (and sepals?) and seed-vessels are a bright purple and quite showy.

To speak from recollection, the birds which I *have chanced to hear* of late are (running over the whole list): —

The squealing notes of young hawks.
Occasionally a red-wing's *tchuck*.
The *link* of bobolinks.
The *chickadee* and *phebe* note of the chickadees, five or six together occasionally.
The *fine* note of the cherry-bird, pretty often.
The twitter of the kingbird, pretty often.
The wood pewee, with its young, peculiarly common and prominent.
Only the *peep* of the robin.
The pine warbler, occasionally.
The bay-wing, pretty often.
The seringo, pretty often.
The song sparrow, often.
The field sparrow, often.
The goldfinch, a prevailing note, with variations into a fine song.
The ground-robin, *once* of late.
The flicker's cackle, *once* of late.
The nighthawk, as usual.

I have not been out early nor late, nor attended particularly to the birds. The more characteristic notes would appear to be the wood pewee's and the goldfinch's, with the squeal of young hawks. These might be called the pewee-days.[1]

[1] *Vide* [p. 107].

Aug. 15. P. M. — Down river to Abner Buttrick's.

Rain in the night and dog-day weather again, after two clear days. I do not like the name "dog-days." Can we not have a new name for this season? It is the season of mould and mildew, and foggy, muggy, often rainy weather.

The front-rank polygonum is apparently in prime, or perhaps not quite.[1] Wild oats, apparently in prime. This is quite interesting and handsome, so tall and loose. The lower, spreading and loosely drooping, dangling or blown one side like a flag, staminate branches of its ample panicle are of a lively yellowish green, contrasting with the very distant upright pistillate branches, suggesting a spear with a small flag at the base of its head. It is our wild grain, unharvested.

The black willows are already being imbrowned. It must be the effect of the water, for we have had no drought.

The smaller white maples are very generally turned a dull red, and their long row, seen against the fresh green of Ball's Hill, is very surprising. The leaves evidently come to maturity or die sooner in water and wet weather. They are redder now than in autumn, and set off the landscape wonderfully. The Great Meadows are not a quarter shorn yet. The swamp white oaks, ash trees, etc., which stand along the shore have horizontal lines and furrows at different heights on their trunks, where the ice of past winters has rubbed against them.

Might not the potamogeton be called *waving weed?*

[1] *Vide* 19th.

I notice the black willows from my boat's place to Abner Buttrick's, to see where they grow, distinguishing ten places. In seven instances they are on the concave or female side distinctly. Then there is one clump just below mouth of Mill Brook on male side, one tree at Simmonds's boat-house, male side, and one by oak on Heywood Shore. The principal are on the sand-bars or points formed along the concave side. Almost the only exceptions to their growing on the concave side exclusively are a few mouths of brooks and edges of swamps, where, apparently, there is an eddy or slow current. Similar was my observation on the Assabet as far up as Woodis Park. The localities I noticed to-day were: mouth of Mill Brook (and up it); sand-bar along shore just below, opposite; opposite Simmonds's boat-house; one at boat-house; Hornbeam Cape; Flint's meadow, along opposite boys' bath-place; one by oak below bath-place on south side; at meadow fence, south side; point of the diving ash; south side opposite bath-place by wall. Up Assabet the places were (the 13th): south side above Rock; Willow Swamp; Willow Bay (below Dove Rock); Willow Island; swift place, south side; mouth of Spencer Brook.

Wars are not yet over. I hear one in the outskirts learning to drum every night; and think you there will be no field for him? He relies on his instincts. He is instinctively meeting a demand.

Aug. 16. Hear it raining again early when I awake, as it did yesterday, still and steady, as if the season were troubled with a diabetes.

P. M. — To Cardinal Ditch.

I hear these birds on my way thither, between two and three o'clock: goldfinches twitter over; the song sparrow sings several times; hear a low warble from bluebirds, with apparently their young, the *link* of many bobolinks (and see large flocks on the fences and weeds; they are largish-looking birds with yellow throats); a large flock of red-wings goes *tchucking* over; a lark twitters; crows caw; a robin peeps; kingbirds twitter, as ever.

At sunset I hear a low short warble from a golden robin, and the notes of the wood pewee.

In my boating of late I have several times scared up a couple of summer ducks of this year, bred in our meadows. They allowed me to come quite near, and helped to people the river. I have not seen them for some days. Would you know the end of our intercourse? Goodwin shot them, and Mrs. ——, who never sailed on the river, ate them. Of course, she knows not what she did. What if I should eat her canary? Thus we share each other's sins as well as burdens. The lady who watches admiringly the matador shares his deed. They belonged to me, as much as to any one, when they were alive, but it was considered of more importance that Mrs. —— should taste the flavor of them dead than that I should enjoy the beauty of them alive.

A three-ribbed goldenrod on railroad causeway, two to three feet high, abundantly out before *Solidago nemoralis.*

I notice that when a frog, a *Rana halecina*, jumps, it drops water at the same instant, as a turtle often when touched as she is preparing to lay. I see many frogs

jump from the side of the railroad causeway toward the ditch at its base, and each drops some water. They apparently have this supply of water with them in warm and dry weather, at least when they leave the water, and, returning to it, leave it behind as of no further use.

Thalictrum Cornuti is now generally done.

The hardhack commonly grows in low meadow-pastures which are uneven with grassy clods or hummocks, such as the almshouse pasture by Cardinal Ditch.

I am surprised to find that where of late years there have been so many cardinal-flowers, there are now very few. So much does a plant fluctuate from season to season. Here I found nearly white ones once. Channing tells me that he saw a white bobolink in a large flock of them to-day. Almost all flowers and animals may be found white. As in a large number of cardinal-flowers you may find a white one, so in a large flock of bobolinks, also, it seems, you may find a white one.

Talked with Minott, who sits in his wood-shed, having, as I notice, several seats there for visitors, — one a block on the sawhorse, another a patchwork mat on a wheelbarrow, etc., etc. His half-grown chickens, which roost overhead, perch on his shoulder or knee. According to him, the Holt is at the "diving ash," where is some of the deepest water in the river. He tells me some of his hunting stories again. He always lays a good deal of stress on the kind of gun he used, as if he had bought a new one every year, when probably he never had more than two or three in his life. In this case it was a "half-stocked" one, a little "cocking-piece," and whenever he finished his game he used the word

"gavel," I think in this way, "gave him gavel," *i. e.* made him bite the dust, or settled him. Speaking of foxes, he said: "As soon as the nights get to be cool, if you step outdoors at nine or ten o'clock when all is still, you'll hear them bark out on the flat behind the houses, half a mile off, or sometimes *whistle* through their noses. I can tell 'em. I know what that means. I know all about that. They are out after something to eat, I suppose." He used to love to hear the goldfinches sing on the hemp which grew near his gate.

At sunset paddled to Hill.

Goodwin has come again to fish, with three poles, hoping to catch some more of those large eels.

A blue heron, with its great undulating wings, prominent cutwater, and leisurely flight, goes over southwest, cutting off the bend of the river west of our house. Goodwin says he saw one two or three days ago, and also that he saw some black ducks. A muskrat is swimming up the stream, betrayed by two long diverging ripples, or ripple-lines, two or three rods long each, and inclosing about seventy-five degrees, methinks. The rat generally dives just before reaching the shore and is not seen again, probably entering some burrow in the bank.

Am surprised to see that the snapping turtle which I found floating dead June 16th, and placed to rot in the cleft of a rock, has been all cleaned, so that there is no smell of carrion. The scales have nearly all fallen off, and the sternum fallen apart, and the bony frame of the back is loose and dropping to pieces, as if it were many years old. It is a wonderful piece of dovetailing, the

ends of the ribs (which are narrow and rib-like) set into sockets in the middle of the marginal bones, whose joints are in each case *between* the ribs. There are many large fish-bones within the shell. Was it killed by the fish it swallowed? The bones not being dispersed, I suppose it was cleaned by insects.

Aug. 17. Still hear the chip-bird early in the morning, though not so generally as earlier in the season.

Minott has only lately been reading Shattuck's "History of Concord," and he says that his account is not right by a jugful, that he does not come within half a mile of the truth, not as he has heard tell.

Some days ago I saw a kingbird twice stoop to the water from an overhanging oak and pick an insect from the surface.

C. saw pigeons to-day.

P. M. — To Annursnack *via* swimming-ford.

The river is twelve to eighteen inches deeper there than usual at this season. Even the slough this side is two feet deep.

There has been so much rain of late that there is no curling or drying of the leaves and grass this year. The foliage is a pure fresh green. The aftermath on early-mown fields is a very beautiful green.

Being overtaken by a shower, we took refuge in the basement of Sam Barrett's sawmill, where we spent an hour, and at length came home with a rainbow overarching the road before us.

The dog-days, the foggy and mouldy days, are not over yet. The clouds are like a mildew which over-

spreads the sky. It is sticky weather, and the air is filled with the scent of decaying fungi.

Aug. 18. P. M. — To Fair Haven Hill.

Miss Caroline Pratt saw the white bobolink yesterday where Channing saw it the day before, in the midst of a large flock.[1] I go by the place this afternoon and see very large flocks of them, certainly several hundreds in all, and one has a little white on his back, but I do not see *the* white one. Almost every bush along this brook is now alive with these birds. You wonder where they were all hatched, for you may have failed to find a single nest. I know eight or ten active boys who have been searching for these nests the past season quite busily, and they have found but two at most. Surely but a small fraction of these birds will ever return from the South. Have they so many foes there? Hawks must fare well at present. They go off in a straggling flock, and it is a long time before the last loiterer has left the bushes near you.

I also see large flocks of blackbirds, blackish birds with chattering notes. It is a fine sight when you can look down on them just as they are settling on the ground with outspread wings, — a hovering flock.

Having left my note-book at home, I strip off a piece of birch bark for paper. It begins at once to curl up, yellow side out, but I hold that side to the sun, and as soon as it is dry it gives me no more trouble.

[1] I hear also of a swallow (probably barn swallow), perfectly white, killed by John Flint's son this year and set up by some one in the North Quarter.

I sit under the oaks at the east end of Hubbard's Grove, and hear two wood pewees singing close by. They are perched on dead oak twigs four or five rods apart, and their notes are so exactly alike that at first I thought there was but one. One appeared to answer the other, and sometimes they both sung together, — even as if the old were teaching her young. It was not the usual spring note of this bird, but a simple, clear *pe-e-eet*, rising steadily with one impulse to the end.[1] They were undistinguishable in tone and rhythm, though one which I thought might be the young was feebler. In the meanwhile, as it was perched on the twig, it was incessantly turning its head about, looking for insects, and suddenly would dart aside or downward a rod or two, and I could hear its bill snap as it caught one. Then it returned to the same or another perch.

Heard a nuthatch.[2]

Last evening one of our neighbors, who has just completed a costly house and front yard, the most showy in the village, illuminated in honor of the Atlantic telegraph. I read in great letters before the house the sentence "Glory to God in the highest." But it seemed to me that that was not a sentiment to be illuminated, but to keep dark about. A simple and genuine sentiment of reverence would not emblazon these words as on a signboard in the streets. They were exploding countless crackers beneath it, and gay company, passing in and out, made it a kind of housewarming. I felt a kind of shame for [it], and was inclined to pass quickly by,

[1] Not heard for a long time, Oct. 15, 1859.

[2] And a week later. Not heard since spring.

the ideas of indecent exposure and cant being suggested. What is religion? That which is never spoken.

Aug. 19. P. M. — Sail to Baker Farm shore.

It is cool with a considerable northwesterly wind, so that we can sail to Fair Haven. The dog-day weather is suddenly gone and here is a cool, clear, and elastic air. You may say it is the first day of autumn. You notice the louder and clearer ring of crickets, and the large, handsome red spikes of the *Polygonum amphibium* are now generally conspicuous along the shore. The *P. hydropiperoides* fairly begins to show. The front-rank polygonum is now in prime.

We scare up a stake-driver several times. The blue heron has within a week reappeared in our meadows, and the stake-driver begins to be seen oftener, and as early as the 5th I noticed young summer ducks about; the same of hawks, owls, etc. This occurs as soon as the young birds can take care of themselves, and some appear to be very early on the return southward, with the very earliest prospect of fall. Such birds are not only more abundant but, methinks, more at leisure now, having reared their family, and perhaps they are less shy. Yes, bitterns are more frequently seen now to lift themselves from amid the pontederia or flags, and take their sluggish flight to a new resting-place, — bitterns which either have got through the labors of breeding or are now first able to shift for themselves. And likewise blue herons, which have bred or been bred not far from us (plainly), are now at leisure, or are impelled to revisit our slow stream. I have not seen the last since spring.

When I see the first heron, like a dusky blue wave undulating over our meadows again, I think, since I saw them going northward the other day, how many of these forms have been added to the landscape, complete from bill to toe, while, perhaps, I have idled! I see two herons. A small bird is pursuing the heron as it does a hawk. Perhaps it is a blackbird and the herons gobble up their young!

I see thistle-down, grayish-white, floating low quite across Fair Haven Pond. There is wont to be just water [*sic*] enough above the surface to drive it along. The heads of the wool-grass are now brown and, in many meadows, lodged. The button-bush is about done. Can hardly see a blossom. The mikania not yet quite in prime. Pontederia has already begun to wane; *i. e.*, the fields of them are not so dense, many seed-vessels having turned down; and some leaves are already withered and black, but the remaining spikes are as fair as ever. It chances that I see no yellow lilies. They must be scarce now. The water is high for the season. Water cool to bather.

We have our first green corn to-day, but it is late. The saw-grass (*Paspalum ?*) of mown fields, not long.

I noticed the localities of black willows as far up as the mouth of the river in Fair Haven Pond, but not so carefully as elsewhere, and from the last observations I infer that the willow grows especially and almost exclusively in places where the drift is most likely to lodge, as on capes and points and concave sides of the river, though I noticed a few exceptions to my rule.

It is so cool, some apprehend a frost to-night.

Aug. 20. Edward Hoar has found in his garden two or three specimens of what appears to be the *Veronica Buxbaumii*, which blossomed at least a month ago. Yet I should say the pods were turgid, and, though obcordate enough, I do not know in what sense they are "obcordate-triangular." He found a *Viburnum dentatum* with leaves somewhat narrower than common and wedge-shaped at base. He has also the *Rudbeckia speciosa*, cultivated in a Concord garden.

Flannery tells me that at about four o'clock this morning he saw white frost on the grass in the low ground near Holbrook's meadow. Up early enough to see a frost in August!

P. M. — To Poplar Hill and the Great Fields.

It is still cool weather with a northwest wind. This weather is a preface to autumn. There is more shadow in the landscape than a week ago, methinks, and the creak of the cricket sounds cool and steady.

The grass and foliage and landscape generally are of a more thought-inspiring color, suggest what some perchance would call a pleasing melancholy. In some meadows, as I look southwesterly, the aftermath looks a bright yellowish-green in patches. Both willows and poplars have leaves of a light color, at least beneath, contrasting with most other trees.

Generally there has been no drought this year. Nothing in the landscape suggests it. Yet no doubt these leaves are, compared with themselves six or eight weeks ago, as usual, "horny and dry," as one remarks by my side.

You see them digging potatoes, with cart and barrels,

in the fields on all hands, before they are fairly ripe, for fear of rot or a fall in the price, and I see the empty barrels coming back from market already.

Polygonum dumetorum, how long?

Aug. 21. P. M. — A-berrying to Conantum.

I notice hardhacks clothing their stems now with their erected leaves, showing the whitish under sides. A pleasing evidence of the advancing season.

How yellow that kind of hedgehog (?) sedge,[1] in the toad pool by Cyrus Hubbard's corner.

I still see the patch of epilobium on Bee Tree Hill as plainly as ever, though only the pink seed-vessels and stems are left.

Aug. 22. P. M. — I have spliced my old sail to a new one, and now go out to try it in a sail to Baker Farm. It is a "square sail," some five feet by six. I like it much. It pulls like an ox, and makes me think there 's more wind abroad than there is. The yard goes about with a pleasant force, almost enough, I would fain imagine, to knock me overboard. How sturdily it pulls, shooting us along, catching more wind than I knew to be wandering in this river valley! It suggests a new power in the sail, like a Grecian god. I can even worship it, after a heathen fashion. And then, how it becomes my boat and the river, — a simple homely square sail, all for use not show, so low and broad! *Ajacean.* The boat is like a plow drawn by a winged bull. If I had had this a dozen years ago, my voyages would have been performed more

[1] *Cyperus phymatodes.*

quickly and easily. But then probably I should have lived less in them. I land on a remote shore at an unexpectedly early hour, and have time for a long walk there. Before, my sail was so small that I was wont to raise the mast with the sail on it ready set, but now I have had to rig some tackling with which to haul up the sail.

As for the beauty of the river's brim: now that the mikania begins to prevail the button-bush has done, the pontederia is waning, and the willows are already somewhat crisped and imbrowned (though the last may be none the worse for it); lilies, too, are as good as gone. So perhaps I should say that the brim of the river was in its prime about the 1st of August this year, when the pontederia and button-bush and white lilies were in their glory. The cyperus (*phymatodes*, etc.) now yellows edges of pools and half-bare low grounds.

See one or two blue herons every day now, driving them far up or down the river before me. I see a mass of bur-reed, etc., which the wind and waves are sweeping down-stream. The higher water and wind thus clear the river for us.

At Baker Farm a large bird rose up near us, which at first I took for a hen-hawk, but it appeared larger. It screamed the same, and finally soared higher and higher till it was almost lost amid the clouds, or could scarcely be distinguished except when it was seen against some white and glowing cumulus. I think it was at least half a mile high, or three quarters, and yet I distinctly heard it scream up there each time it came round, and with my glass saw its head steadily bent toward the ground, looking for its prey. Its head, seen in a proper light, was dis-

tinctly whitish, and I suspect it may have been a white-headed eagle. It did not once flap its wings up there, as it circled and sailed, though I watched it for nearly a mile. How fit that these soaring birds should be haughty and fierce, not like doves to our race!

Aug. 23. Cooler than ever. Some must have fires, and I close my window.

P. M. — Britton's camp *via* Hubbard's Close.

The rhexia in the field west of Clintonia Swamp makes a great show now, though a little past prime. I go through the swamp, wading through the luxuriant cinnamon fern, which has complete possession of the swamp floor. Its great fronds, curving this way and that, remind me [of] a tropical vegetation. They are as high as my head and about a foot wide; may stand higher than my head without being stretched out. They grow in tufts of a dozen, so close that their fronds interlace and form one green waving mass. There in the swamp cellar under the maples. A forest of maples rises from a forest of ferns. My clothes are covered with the pale-brown wool which I have rubbed off their stems.[1]

See an abundance of pine-sap on the right of Pine-sap Path. It is almost all erect, some eight to nine inches high, and all effete there. Some stems are reddish. It lifts the leaves with it like the Indian-pipe, but is not so delicate as that. The Indian-pipe is still pushing up.

Everywhere in woods and swamps I am already reminded of the fall. I see the spotted sarsaparilla leaves

[1] *Vide* Sept. 24, 1859.

and brakes, and, in swamps, the withering and blackened skunk-cabbage and hellebore, and, by the river, the already blackening pontederias and pipes. There is no plateau on which Nature rests at midsummer, but she instantly commences the descent to winter.

I see a golden-crowned thrush, but it is silent except a chip; sitting low on a twig near the main stem of a tree, in these deep woods.

High blackberries now in their prime, their great racemes of shining black fruit, mixed with red and green, bent over amid the sweet-fern and sumach on sunny hillsides, or growing more rankly with larger fruit by rich roadsides and in lower ground.

The *chewink* note of a chewink (not common), also a cuckoo's note.

Smooth sumach berries all turned crimson. This fruit is now erect spear-heads, rising from the ample dark-green, unspotted leaves, pointing in various directions. I see dense patches of the pearly everlasting, maintaining their ground in the midst of dense green sweet-fern, a striking contrast of snow-white and green. *Viburnum nudum* berries, apparently but a day or two. *Epilobium angustifolium* is abundantly shedding its downy seed, — wands of white and pink.

Emerson says that he and Agassiz and Company broke some dozens of ale-bottles, one after another, with their bullets, in the Adirondack country, using them for marks! It sounds rather Cockneyish. He says that he shot a peetweet for Agassiz, and this, I think he said, was the first game he ever bagged. He carried a double-barrelled gun, — rifle and shotgun, — which he bought for

the purpose, which he says received much commendation, — all parties thought it a very pretty piece. Think of Emerson shooting a peetweet (with shot) for Agassiz, and cracking an ale-bottle (after emptying it) with his rifle at six rods! They cut several pounds of lead out of the tree. It is just what Mike Saunders, the merchant's clerk, did when he was there.

The writer needs the suggestion and correction that a correspondent or companion is. I sometimes remember something which I have told another as worth telling to myself, *i. e.* writing in my Journal.

Channing, thinking of walks and life in the country, says, "You don't want to discover anything new, but to discover something old," *i. e.* be reminded that such things still are.

Aug. 24. Edward Hoar brings *Cassia Chamæcrista* from Greenport, L. I., which must have been out a good while.

P. M. — Sail to Ball's (?) Hill.

It is a strong but fitful northwest wind, stronger than before. Under my new sail, the boat dashes off like a horse with the bits in his teeth. Coming into the main stream below the island, a sudden flaw strikes me, and in my efforts to keep the channel I run one side under, and so am compelled to beach my boat there and bail it.

They are haying still in the Great Meadows; indeed, not half the grass is cut, I think.

I am flattered because my stub sail frightens a haymakers' horse tied under a maple while his masters are loading. His nostrils dilate; he snorts and tries to break

loose. He eyes with terror this white wind steed. No wonder he is alarmed at my introducing such a competitor into the river meadows. Yet, large as my sail is, it being low I can scud down for miles through the very meadows in which dozens of haymakers are at work, and they may not detect me.

The zizania is the greater part out of bloom; *i. e.*, the yellowish-anthered (?) stamens are gone; the wind has blown them away. The *Bidens Beckii* has only begun a few days, it being rather high water. No hibiscus yet.

The white maples in a winding row along the river and the meadow's edge are rounded hoary-white masses, as if they showed only the under sides of their leaves. Those which have been changed by water are less bright than a week ago. They now from this point (Abner Buttrick's shore) are a pale lake, mingling very agreeably with the taller hoary-white ones. This little color in the hoary meadow edging is very exhilarating to behold and the most memorable phenomenon of the day. It is as when quarters of peach of this color are boiled with white apple-quarters. Is this anything like *murrey* color? In some other lights it is more red or scarlet.

Climbing the hill at the bend, I find *Gerardia Pedicularia*, apparently several days, or how long?

Looking up and down the river this sunny, breezy afternoon, I distinguish men busily haying in gangs of four or five, revealed by their white shirts, some two miles below, toward Carlisle Bridge, and others still, further up the stream. They are up to their shoulders in the grassy sea, almost lost in it. I can just discern a few white specks in the shiny grass, where the most distant

are at work. What an adventure, to get the hay from year to year from these miles on miles of river meadow! You see some carrying out the hay on poles, where it is too soft for cattle, and loaded carts are leaving the meadows for distant barns in the various towns that border on them.

I look down a straight reach of water to the hill by Carlisle Bridge, — and this I can do at any season, — the longest reach we have. It is worth the while to come here for this prospect, — to see a part of earth so far away over the water that it appears islanded between two skies. If that place is real, then the places of my imagination are real.

Desmodium Marylandicum apparently in prime along this Ball's (?) Hill low shore, and apparently another kind, *Dillenii* (??) or *rigidum* (??), the same. These and lespedezas now abound in dry places. Carrion-flower fruit is blue; how long? Squirrels have eaten hazelnuts and pitch pine cones for some days.

Now and of late we remember hazel bushes, — we become aware of such a fruit-bearing bush. They have their turn, and every clump and hedge seems composed of them. The burs begin to look red on their edges.

I notice, in the river, opposite the end of the meadow-path, great masses of ranunculus stems, etc., two or three feet through by a rod or more long, which look as if they had been washed or rolled aside by the wind and waves, amid the potamogeton.

I have just read of a woodchuck that came to a boat on Long Island Sound to be taken in!

Pipes (*Equisetum limosum*) are brown and half-with-

ered along the river, where they have been injured by water.

Aug. 25. It has been cool and especially windy from the northwest since the 19th, inclusive, but is stiller now.

The note of a warbling vireo sounds very rare.

P. M. — To Lupine Hill and beyond.

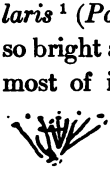
I see a mouse on the dry hillside this side of Clamshell. It is evidently the short-tailed meadow mouse, or *Arvicola hirsuta*. Generally above, it is very dark brown, almost blackish, being browner forward. It is also dark beneath. Tail but little more than one inch long. Its legs must be very short, for I can hardly glimpse them. Its nose is not sharp. It endeavors to escape down the hill to the meadow, and at first glides along in a sort of path (?), methinks. It glides close to the ground under the stubble and tries to conceal itself.

I gather from Nut Meadow Brook, not far below the road, a potamogeton (perhaps *P. Claytoni* (*heterophyllus* of Gray), which Russell said was the one by road at Jenny Dugan's). It is still out. Has handsome broad, grassy immersed leaves and somewhat elliptic floating ones.

I distinguish these plants this afternoon: *Cyperus filiculmis* (*Mariscoides*, or tuberous cyperus of Bigelow) in arid, sandy pastures, with globular green heads and slender, commonly slanting culms, five to twelve inches long. It is perhaps getting stale. The prevalent grass in John Hosmer's meadow I take to be cut-grass?[1] Long since done, and the leaves now commonly purplish, re-

[1] No.

flecting that color in the sun from a distance. The *Paspalum setaceum* (*ciliatifolium*), my saw-grass, which I have seen for some time, commonly cut off by the mowers, apparently in prime or past. *Eragrostis capillaris*[1] (*Poa hirsuta*), hair spear-grass, perhaps not quite so bright as heretofore. Money-Diggers' Hollow has the most of it. Say a week in prime. *Fimbrystilis capillaris* (*Scirpus capillaris*), that little scirpus



turning yellowish in sandy soil, as our garden and Lupine Hill sand. Some time in prime. *Cyperus strigosus* under Clamshell Hill, that yellowish fuzzy-headed plant, five to twelve inches high, now apparently in prime. Also in Mrs. Hoar's garden. Also *Cyperus phymatodes*, very much like last, in Mrs. Hoar's garden, which has little tubers at a distance from the base; apparently in prime. *Cyperus dentatus* (?), with flat spikelets, under Solidago rigida Bank, apparently in prime; also [at] Pout's Nest, with round fascicles of leaves amid spikes. *Juncus scirpoides*[2] (?) (*polycephalus*, many-headed of Bigelow), at Alder Ditch and in Great Meadows, etc., perhaps some time. *Andropogon furcatus*, forked beard grass, Solidago rigida Bank, a slender grass three to seven feet high on dry soil, apparently in prime with digitate purple spikes, all over hillside behind Cæsar's. *Setaria glauca*, glaucous panic grass, bottle grass, sometimes called fox-tail, tawny yellow, going to seed, Mrs. Hoar's garden. *Setaria viridis*, green bottle grass, in garden, some going to seed, but later than the last. These two I have called millet grass. *Aristida*

[1] [*Capillaris* is crossed out in pencil and *pectinacea* substituted.]

[2] Is it not *paradoxus*? *Vide* Aug. 30.

dichotoma,[1] poverty grass, slender, curving, purplish, in tufts on sterile soil, looking white fuzzy as it goes to seed; apparently in prime.

Aug. 26. P. M. — To Great Meadows.

The *Solidago arguta* is apparently in its prime. Hips of moss rose not long scarlet. The *Juncus effusus*, a long [time] withered (the upper part). The liatris is about (or nearly) in prime. *Aster lævis*, how long?

Two interesting tall purplish grasses appear to be the prevailing ones now in dry and sterile neglected fields and hillsides, — *Andropogon furcatus*, forked beard grass, and apparently *Andropogon scoparius*,[2] purple wood grass, though the last appears to have three awns like an *Aristida*. The first is a very tall and slender-culmed grass, with four or five purple finger-like spikes, raying upward from the top. It is very abundant on the hillside behind Peter's. The other is also quite slender, two to three or four feet high, growing in tufts and somewhat curving, also commonly purple and with pretty purple stigmas like the last, and it has purple anthers.[3] When out of bloom, its appressed spikes are recurving and have a whitish hairy or fuzzy look.

These are the prevailing conspicuous flowers where I walk this afternoon in dry ground. I have sympathy with them because they are despised by the farmer and

[1] *Andropogon scoparius*, purple wood grass?

[2] Put with this *Andropogon*, *i. e. Sorghum, nutans*. *Vide* Sept. 6th.

[3] Broom grass, perhaps.

occupy sterile and neglected soil. They also by their rich purple reflections or tinges seem to express the ripeness of the year. It is high-colored like ripe grapes, and expresses a maturity which the spring did not suggest. Only the August sun could have thus burnished these culms and leaves. The farmer has long since done his upland haying, and he will not deign to bring his scythe to where these slender wild grasses have at length flowered thinly. You often see the barè sand between them. I walk encouraged between the tufts of purple wood grass, over the sandy fields by the shrub oaks, glad to recognize these simple contemporaries. These two are almost the first grasses that I have learned to distinguish. I did not know by how many friends I was surrounded. The purple of their culms excites me like that of the pokeweed stems.

Think what refuge there is for me before August is over, from college commencements and society that isolates me! I can skulk amid the tufts of purple wood grass on the borders of the Great Fields! Wherever I walk this afternoon the purple-fingered grass stands like a guide-board and points my thoughts to more poetic paths than they have lately travelled.

A man shall, perchance, rush by and trample down plants as high as his head, and cannot be said to know that they exist, though he may have cut and cured many tons of them for his cattle. Yet, perchance, if he ever favorably attend to them, he may be overcome by their beauty.

Each humblest plant, or weed, as we call it, stands there to express some thought or mood of ours, and yet

how long it stands in vain! I have walked these Great Fields so many Augusts and never yet distinctly recognized these purple companions that I have there. I have brushed against them and trampled them down, forsooth, and now at last they have, as it were, risen up and blessed me. Beauty and true wealth are always thus cheap and despised. Heaven, or paradise, might be defined as the place which men avoid. Who can doubt that these grasses which the farmer says are of no account to him find some compensation in my appreciation of them? I may say that I never saw them before, or can only recall a dim vision of them, and now wherever I go I hardly see anything else. It is the reign and presidency only of the andropogons.[1]

I walk down the Great Meadows on the upland side. They are still mowing, but have not got more than half, and probably will not get nearly all. I see where the tufts of *Arum peltandrum* have been cut off by the mower, and the leaves are all gone, but the still green fruit, which had curved downward close to the ground on every side amid the stubble, was too low for his scythe, and so escaped. Thus this plant is perpetuated in such localities, though it may be cut before the seed is mature.

The wool-grass, black-bracted, of these meadows long since went out of bloom, and is now not merely withered at top but wasted half away, and is quite gray, while that which I examine in another meadow, green-bracted, has but recently ceased to bloom. Looking from this side, the meadow appears to be filled almost exclusively with wool-grass, yet very little has any culm or has blossomed

[1] [*Excursions*, pp. 255–257; Riv. 313–316.]

this year. I notice, however, one tract, in the midst of the rest, an oblong square with perfectly straight sides, reaching from the upland toward the river, where it has quite generally blossomed and the culms still stand as high as my head. This, plainly, is because the land of a particular proprietor has been subjected to a peculiar treatment.

Minott tells me that once, one very dry summer, when but part of these meadows had been cut, Moore and Hosmer got the owners to agree to have them burnt over, in the expectation that it would improve the quality of the grass, and they made quite an affair of it, — had a chowder, cooked by Moore's boys, etc.; but the consequence was that this wool-grass came in next year more than ever.

Some come a good way for their meadow-grass, even from Lincoln. George Baker has some in this meadow and some in the Sudbury meadows. But Minott says they want to get rid of their river meadow now, since they can get more and very much better grass off their redeemed swamps, or meadows of their own making, near home. Hardhack, meadow-sweet, alders, maples, etc., etc., appear to be creeping into the meadow. M. says they used to mow clean up to the ditch by the hard land. He remembers how he used to suffer from the heat, working out in the sun on these broad meadows, and when they took their luncheon, how glad he was to lie along close to the water, on the wet ground under the white maples by the riverside. And then one would swim a horse over at the Holt,[1] go up to Jack Buttrick's

[1] Goodwin puts the "Holt" lower down, where I did.

(now Abner's), where there was a well of cool water, and get one or two great jugs full, with which he recrossed on the horse. He tells of one fellow who trod water across there with a jug in each hand!

He has seen young woodcocks in the nest there, *i. e.* on the ground where he had mowed, the middle of August; and used to see the summer ducks perched on the maples, on some large limb close up to the main stem, since they cannot cling to a small twig.

Aug. 27. P. M. — To Walden.

Dog-day weather again to-day, of which we had had none since the 18th, — *i. e.* clouds without rain. Wild carrot on railroad, apparently in prime. *Hieracium Canadense*, apparently in prime, and perhaps *H. scabrum*. Lactuca, apparently much past prime, or nearly done. The *Nabalus albus* has been out some ten days, but *N. Fraseri* at Walden road will not open, apparently, for some days yet.

I see round-leaved cornel fruit on Heywood Peak, now half China-blue and half white, each berry. *Rhus Toxicodendron* there is half of it turned scarlet and yellow, as if we had had a severe drought, when it has been remarkably wet. It seems, then, that in such situations some plants will always assume this prematurely withered autumnal aspect. *Orchis lacera*, probably done some time. Robins fly in flocks.

Apparently *Juncus tenuis*, some time out of bloom, by depot wood-piles, *i. e.* between south wood-shed and good apple tree; some fifteen inches high. More at my boat's shore.

Aug. 28. Soaking rain last night, straight down. When the wind stirs after the rain, leaves that were prematurely ripe or withered begin to strew the ground on the leeward side. Especially the scarlet leaves of the cultivated cherry are seen to have fallen. Their change, then, is not owing to drought, but commonly a portion of them ripens thus early, reminding us of October and November. When, as I go to the post-office this morning, I see these bright leaves strewing the moist ground on one side of the tree and blown several rods from it into a neighboring yard, I am reminded that I have crossed the summit ridge of the year and have begun to descend the other slope. The prospect is now toward winter. These are among the first-fruits of the leafy harvest.

The sharp whistling note of a downy woodpecker, which sounds rare; perhaps not heard since spring.

Aug. 29. I hear this morning one *eat it potter* from a golden robin. They are now rarely seen.

The ghost-horse (*Spectrum*) is seen nowadays, — several of them. All these high colors in the stems and leaves and other portions of plants answer to some maturity in us. I presume if I am the wiser for having lived this season through, such plants will emblazon the truth of my experience over the face of nature, and I shall be aware of a beauty and sweetness there.

Has not the mind, too, its harvest? Do not some scarlet leaves of thought come scatteringly down, though it may be prematurely, some which, perchance, the summer's drought has ripened, and the rain loosened? Are there

no purple reflections from the culms of thought in my mind?

I remember when boiled green corn was sold piping hot on a muster-field in this town, and my father says that he remembers when it used to be carried about the streets of Boston in large baskets on the bare heads of negro women, and gentlemen would stop, buy an ear, and eat it in the street.

Ah! what a voice was that hawk's or eagle's of the 22d! Think of hearing, as you walk the earth, as usual in leaden shoes, a fine, shrill scream from time to time, which you would vainly endeavor to refer to its true source if you had not watched the bird in its upward flight. It comes from yonder black spot on the bosom of a cloud. I should not have suspected that sound to have issued from the bosom of a cloud if I had not seen the bird. What motive can an eagle have for screaming among the clouds, unobserved by terrestrial creatures? We walk invested by sound, — the cricket in the grass and the eagle in the clouds. And so it circled over, and I strained my eyes to follow it, though my ears heard it without effort.

Almost the very sands confess the ripening influence of the August sun, and, methinks, with the slender grasses waving over them, reflect a purple tinge. The empurpled sands. Such is the consequence of all this sunshine absorbed into the pores of plants and of the earth. All sap or blood is wine-colored. The very bare sands, methinks, yield a purple reflection. At last we have not only the purple sea, but the purple land.[1]

[1] [*Excursions*, pp. 257, 258; Riv. 316.]

P. M. — To J. Farmer's *via* Assabet.

As, standing up in my boat, I am watching some minnows at the Prichard bend steadily stemming the current in the sunny water between the waving potamogeton, right under my face, I see a musquash gliding along above the sand directly beneath them, a perfect denizen of the water as much as they. This rat was a pale brown, as light as pale-brown paper or perfectly withered white oak leaves. Its coat is never of this color out of water, and I suppose it was because it was completely coated with air. This makes it less visible on a sandy bottom.

Is not that *Eleocharis tenuis*, long since out of bloom, growing in the water along the Merrick shore, near the oak; round culms, fifteen inches to two feet high? A spiked rush, without a leaf, and round. I can hardly find a head left on it. Yet Flint says this blooms in August! It grows in dense fields like pipes. Did I find it before this year?

The mikania is apparently in prime or a little past. Perhaps the front-rank polygonum is in prime now, for there is apparently more than before.

I look along Mantatuket Field hedge to see if there are hazelnuts there, but am surprised to find that thereabouts the bushes have been completely stripped by squirrels already and the rich brown burs are strewn on the ground beneath. What a fine brown these dried burs have already acquired, — not chestnut nor hazel! I fear it is already too late for me, though I find some yet quite green in another place. They must have been very busy collecting these nuts and husking them for a

fortnight past, climbing to the extremities of the slender twigs. Who witnesses the gathering of the hazelnuts, the hazel harvest? Yet what a busy and important season to the striped squirrel! Now, if ever, he needs to get up a bee. Every nut that I could find left in that field was a poor one. By more frequented paths the squirrels have not worked yet. Take warning from the squirrel, which is already laying up his winter store.

I see some *Cornus sericea* berries turning. The Assabet helianthus (apparently variety of *decapetalus*), well out some days at least. Are not the petals peculiarly reflexed? Small botrychium in the bobolink meadow, not yet. *Gentiana Andrewsii*, one not quite shedding pollen.

Before bathing at the Pokelogan, I see and hear a school of large suckers, which have come into this narrow bay and are swiftly dashing about and rising to the surface, with a bubbling sound, as if to snatch something from the surface. They agitate the whole bay. They [are] great ruddy-looking fellows, limber with life. How intelligent of all watery knowledge! They seem to measure the length, breadth, and depth of that cove — which perhaps they never entered before — with every wave of their fins. They feel it all at once. With what superfluous vigor they seem to move about restlessly in their element! Lift them but six inches, and they would quirk their tails in vain. They are poor, soft fish, however, large as they are, and taste when cooked at present much like boiled brown paper.

The wild *Monarda fistulosa* is apparently nearly done. *Cicuta maculata*, apparently generally done.

J. Farmer shot a sharp-shinned hawk this morning,

which was endeavoring to catch one of his chickens. I bring it home and find that it measures seventeen inches in length and thirty in alar extent, and the tail extends four inches beyond the closed wings. It has a very large head, and the wing is six and a half inches wide at the secondaries. It is dark-brown above, skirted with ferruginous; scapulars, with white spots; legs, bright-yellow; iris, yellow. Has those peculiar pendulous lobes to the feet, which Farmer thinks are to enable it to hold a small bone of its prey between the nail and the lobe, as it feeds, while perching. The breast and belly feathers are shafted with dark-brown pointed spots. Vent white. There are three obvious slate-colored bars to tail, alternating with the black.[1]

F. says that he has seen the nest of a smaller hawk, the pigeon hawk, heretofore, on an oak (in Owl-Nest Swamp), made of sticks, some fifteen feet from ground. R. Rice says that he has found the nest of the pigeon hawk hereabouts.

We go to see a bittern nest by Spencer Brook. F. says they call the cardinal-flower "slink-weed," and say that the eating it will cause cows to miscarry. He calls the *Viburnum nudum* "withe-wood," and makes a withe by treading on one end and twisting by the other till he cracks it and makes it flexible so that it will bend without breaking. The bittern's nest was close to the edge of the brook, eighteen inches above the water, and was made of the withered sedge that had grown close by (*i. e.* wool-grass, etc.) and what I have called [two] pages back *Eleocharis tenuis*. It was quite a deep nest, like

[1] I have the wing, legs, and tail of this specimen. *Vide* next page.

and as big as a hen's nest, deep in the grass. He or his son saw the young about it a month ago.

He hears — heard a week ago — the sound of a bird flying over, like *cra-a-ack*, *cr-r-r-a-k*, only in the night, and thinks it may be a blue heron.[1]

We saw where many cranberries had been frost-bitten, F. thinks the night of the 23d. They are much injured. *Spiranthes cernua*, how long? Near the bittern-nest, grows what F. calls blue-joint grass; out of bloom.

Returning, rather late afternoon, we saw some forty martins sitting in a row and twittering on the ridge of his *old* house, apparently preparing to migrate. He had never seen it before. Soon they all took to flight and filled the air in the neighborhood.

The sharp-shinned hawk of to-day is much larger than that of July 21st, though the colors, etc., etc., appear to be essentially the same. Yet its leg is not so stout as that which Farrar[2] gave me, but is at least half an inch longer.[3] The toes, especially, are longer and more slender, but I am not sure whether Farrar's hawk has those pendulous lobes, the foot is so dry, nor if it had sharp-edged shin, it being eaten away by worms. The inner vanes of the primaries of Farrar's bird are brighter white with much narrower bars of blackish. The longest primary of Farrar's bird is about ten inches; that of to-day, about eight inches. I find the outside tail-feathers of to-day's bird much harder to pull than the inside ones![4]

[1] *Vide* three pages forward.

[2] *Vide* Oct. 11, 1856.

[3] Which makes me think Farrar's another species. He said it had not a white rump.

[4] *Vide* July 21st. *Vide* May 17, 1860.

Our black willow is of so peculiar and light a green, so ethereal, that, as I look back forty rods at those by the Heron Rock, their outlines are seen with perfect distinctness against the darker green of maples, etc., three or four rods behind them, as if they were a green cloud or smoke blown by. They are seen as distinctly against these other trees as they would be against the sky.

Rice tells me a queer story. Some twenty-five years ago he and his brother William took a journey in their wagon into the northwest part of Maine, carrying their guns and fishing-tackle with them. At Fryeburg they visited the scene of Lovewell's Fight, and, seeing some trout in the stream there, they tried to dig some fishworms for bait, but they could not find any. So they asked a boy where they got fishworms, but he did not know what they meant. "Long, slender worms, angleworms," said they; but he only answered that he had seen worms in their manure-heap (which were grubs). On inquiring further, they found that the inhabitants had never seen nor heard of angleworms, and one old settler, who had come from Massachusetts and had lived there thirty years, declared that there was no such worm in that neighborhood.

Mr. Farmer gave me a turtle-shaped bug found by Melvin on a board by the river, some time ago.

I hear A—— W—— complained of for overworking his cattle and hired men, but there is this to be said in his favor, that he does not spare himself. They say that he made his horse "Tom" draw twenty-nine hundred of hay to Boston the other day, — or night, — but then he

put his shoulder to the wheel at every hill. I hear that since then the horse has died, but W—— is alive and working.

How hard one must work in order to acquire his language, — words by which to express himself! I have known a particular rush, for instance, for at least twenty years, but have ever been prevented from describing some [of] its peculiarities, because I did not know its name nor any one in the neighborhood who could tell me it. With the knowledge of the name comes a distincter recognition and knowledge of the thing. That shore is now more describable, and poetic even. My knowledge was cramped and confined before, and grew rusty because not used, — for it could not be used. My knowledge now becomes communicable and grows by communication. I can now learn what others know about the same thing.

Aug. 30. P. M. — To bayonet rush by river.

Find at Dodd's shore: *Eleocharis obtusa*, some time out of bloom (fresh still at Pratt's Pool); also *Juncus acuminatus* (?), just done (also apparently *later* and yet in bloom at Pout's Nest); also what I called *Juncus scirpoides*, but which appears to be *Juncus paradoxus*, with seeds tailed at both ends, (it is fresher than what I have seen before, and smaller), not done. Some of it with few flowers! A terete leaf rises above the flower. It looks like a small bayonet rush.

The *Juncus militaris* has been long out of bloom. The leaf is three feet long; the whole plant, four or five.

It grows on edge of Grindstone Meadow and above. It would look more like a bayonet if the leaf were shorter than the flowering stem, which last is the bayonet part. This is my rainbow rush.

All over Ammannia Shore and on bare spots in meadows generally, *Fimbristylis autumnalis*, apparently in prime; minute, two to five inches high, with aspect of *F. capillaris*.

As I am now returning over Lily Bay, I hear behind me a singular loud stertorous sound which I thought might have been made by a cow out of order, twice sounded. Looking round, I saw a blue heron flying low, about forty rods distant, and have no doubt the sound was made by him. Probably this is the sound which Farmer hears.[1]

Aug. 31. P. M. — To Flint's Pond.

A hot afternoon. We have had but few warmer. I hear and see but few bobolinks or blackbirds for several days past. The former, at least, must be withdrawing. I have not heard a seringo of late, but I see to-day one golden robin. The birches have lately lost a great many of their lower leaves, which now cover and yellow the ground. Also some chestnut leaves have fallen. Many brakes in the woods are perfectly withered.

At the Pout's Nest, Walden, I find the *Scirpus debilis*, apparently in prime, generally aslant; also the *Cyperus dentatus*, with some spikes changed into leafy tufts; also here less advanced what I have called *Juncus acuminatus*.

[1] *Vide* three pages back.

Ludwigia alternifolia still. Sericocarpus about done.

High blackberries are abundant in Britton's field. At a little distance you would not suspect that there were any, — even vines, — for the racemes are bent down out of sight, amid the dense sweet-ferns and sumachs, etc. The berries still not more than half black or ripe, keeping fresh in the shade. Those in the sun are a little wilted and insipid.

The smooth sumach's lower leaves are bright-scarlet on dry hills. *Lobelia Dortmanna* is not quite done. Some ground-nuts are washed out.

The Flint's Pond rush appears to be *Cladium mariscoides*, twig rush, or, in Bigelow, water bog rush, a good while out of bloom; style three-cleft. It is about three feet high. This, with *Eleocharis palustris*, which is nearest the shore, forms the dense rushy border of the pond. It extends along the whole of this end, at least about four rods wide, and almost every one of the now dry and brown flower-heads has a cobweb on it. I perceive that the slender semicircular branchlets so fit to the grooved or flattened culm as still, when pressed against it, to make it cylindrical! — very neatly.

The monotropa is still pushing up. Red choke-berry, apparently not long.

At Goose Pond I scare up a small green bittern. It plods along low, a few feet over the surface, with limping flight, and alights on a slender water-killed stump, and voids its excrement just as it starts again, as if to lighten itself.

Edward Bartlett brings me a nest found three feet from the ground in an arbor-vitæ, in the New Burying-

Ground,[1] with one long-since addled egg in it. It is a very thick, substantial nest, five or six inches in diameter and rather deep; outwardly of much coarse stubble with its fine root-fibres attached, loose and dropping off, around a thin casing of withered leaves; then finer stubble within, and a lining of fine grass stems and horse-hair. The nest is most like that found on Cardinal Shore with an addled pale-bluish egg, which I thought a wood thrush's at first, except that that has no casing of leaves. It is somewhat like a very large purple finch's nest, or perchance some red-wing's with *a hair lining*. The egg is three quarters of an inch long, rather broad at one end (or for length), greenish-white with brown dashes or spots, becoming a large conspicuous purple-brown blotch at the large end; almost exactly like — but a little greener (or bluer) and a little smaller — the egg found on the ground in R. W. E.'s garden. Do the nest and egg belong together? Was not the egg dropped by a bird of passage in another's nest? Can it be an indigo-bird's nest? I take it to be too large.

[1] *Vide* the nest.

III

SEPTEMBER, 1858

(ÆT. 41)

Sept. 1. P. M. — To Botrychium Swamp.

Aster miser not long, but the leaves turned red. At the pool by the oaks behind Pratt's, I see the *Myriophyllum ambiguum* still, and going to seed, greening the surface of the water. The *Leersia oryzoides*, false rice, or rice cut-grass, is abundant and in prime on the shore there. Also find it on the shore of Merrick's pasture. It has very rough sheaths. Am surprised to see frog(?)-spawn *just laid*, neither in spherical masses nor in a string, but flatted out thin *on the surface*, some eight or nine inches wide, — a small black spawn, white one side, as usual. I saw one or two *F.* [*sic*] *fontinalis* on the shore. Was it toad-spawn?

Ranunculus repens in bloom — as if begun again? — at the violet wood-sorrel spring. *Chelone glabra* well out, how long? In the same meadow, *Aster longifolius* well out, not long. That meadow is white with the *Eriophorum polystachyon*, apparently var. *angustifolium* (?). *Vide* it pressed. On dry land, common, but apparently getting stale, *Panicum clandestinum*. Dangle-berries now ready for picking. At Botrychium Swamp, *Nabalus altissimus*. Of twenty plants (all in shade) only one out, apparently two or three days. Elsewhere, in open land, *N. Fraseri*, apparently several days, say five; but

not a very rough one. *Ledum Telephium*, how long? In the evening, by the roadside, near R. W. E.'s gate, find a glow-worm of the common kind. Of two men, Dr. Bartlett and Charles Bowen, neither had ever seen it!

Sept. 2. Up Assabet.

The common light-sheathed *Scirpus Eriophorum* still. At the Pokelogan, apparently *Cinna arundinacea* (?) in prime (one stamen); also *Elymus Virginicus* (?). Lyme grass or wild rye, apparently lately done. That rich, close, erect-panicled grass of the meadows, apparently for a month in bloom, seems to be *Glyceria obtusa*. Very common in the meadow west of Brooks Clark's.

Sept. 3. P. M. — Up Assabet a-hazelnutting.

I see a small striped snake, some fifteen or eighteen inches long, swallowing a toad, all but the head and one fore leg taken in. It is a singular sight, that of the little head of the snake directly above the great, solemn, granitic head of the toad, whose eyes are open, though I have reason to think that he is not alive, for when I return some hours after I find that the snake has disgorged the toad and departed. The toad had been swallowed with the hind legs stretched out and close together, and its body is compressed and elongated to twice its length, while the head, which had not been taken in, is of the original size and full of blood. The toad is quite dead, apparently killed by being so far crushed; and its eyes are still open. The body of the snake was enlarged regularly from near the middle to its jaws. It appeared to have given up this attempt at the

eleventh hour. Probably the toad is very much more elongated when perfectly swallowed by a small snake. It would seem, then, that snakes undertake to swallow toads which are too big for them.

I see where the bank by the Pokelogan is whitewashed, *i. e.* the grass, for a yard or two square, by the thin droppings of some bird which has roosted on a dead limb above. It was probably a blue heron, for I find some slate-blue feathers dropped, apparently curving breast-feathers, broadly shafted with white.

I hear a faint warble from time to time from some young or old birds, from my window these days. Is it the purple finch again, — young birds practicing?[1]

Zizania still.

The hazelnut bushes up this way are chiefly confined to the drier river-bank. At least they do not extend into the lower, somewhat meadowy land further inland. They appear to be mostly stripped. The most I get are left hanging over the water at the swimming-ford.

How important the hazelnut to the ground squirrel! They grow along the walls where the squirrels have their homes. They are the oaks that grow before their doors. They have not far to go to their harvesting. These bushes are generally stripped, but isolated ones in the middle of fields, away from the squirrel-walks, are still full of burs. The wall is highway and rampart to these little beasts. They are almost inaccessible in their holes beneath it, and on either side of it spring up, also defended by the wall, the hazel bushes on whose fruit the squirrels in a great measure depend. Notwithstanding

[1] *Vide* Sept. 6th.

the abundance of hazelnuts here, very little account is made of them, and I think it is because pains is not taken to collect them before the squirrels have done so. Many of the burs are perfectly green yet, though others are brightly red-edged. The squirrel lives in a hazel grove. There is not a hazel bush but some squirrel has his eye on its fruit, and he will be pretty sure to anticipate you. As we say, "The tools to those who can use them," so we may say, "The nuts to those who can get them."

That floating grass by the riverside whose lower leaves, so flat and linear, float on the surface of the water, though they are not now, at least, lake-colored, is apparently the *Glyceria fluitans*, floating fescue grass, still blooming and for a good while. I got it yesterday at Merrick's shore.

At the sand-bar by the swimming-ford, I collect two small juncuses, not knowing but I have pressed them before. One appears to be *Juncus scirpoides* (?), small as it is; the other, *Juncus articulatus* (??).

At Prichard's shore I see where they have plowed up and cast into the river a pile of elm roots, which interfered with their laying down the adjacent field. One which I picked up I at first thought was a small lead pipe, partly coiled up and muddy in the water, it being apparently of uniform size. It was just nineteen feet and eight inches long; the biggest end was twenty-one fortieths of an inch in diameter, and the smallest nineteen fortieths. This difference was scarcely obvious to the eye. No doubt it might have been taken up very much longer. It looked as if, when green and flexible, it might answer

the purpose of a rope, — of a cable, for instance, when you wish to anchor in deep water. The wood is very porous.

The narrow brown sheaths from the base of white pine leaves now strew the ground and are washed up on the edge of puddles after the rain.

Sept. 4. Much rain, with thunder and lightning.

Our large-fruited sparganium is evidently *S. ramosum*, still a little, at least, in flower.

My large grass of the riverside with a narrow or spike-like appressed panicle, long since out, at the end of a long bare culm, leafy below, is apparently *Phalaris arundinacea.*

Piper grass is apparently *Triticum repens;* now done.

What I called *Panicum capillare* (after Hoar, without examining) is *P. sanguinale*, crab grass, finger grass, or purple panic grass. *Panicum capillare* (very different and like *Eragrostis capillaris*, the fine purple grass) is now in prime in garden.

Sept. 5. P. M. — To Walden.

Prinos verticillatus berries reddening.

I hear two or more wood pewees this afternoon, but had not before for a fortnight or more. The *pewee days* are over for some time.

Went down to the pond-hole behind where I used to live. It is quite full of water. The middle or greater part is densely covered with target leaves, crowding one another and curling up on their edges. Then there is a

space or canal of clear water, five to twenty feet wide, quite around them, and the shore is thickly covered with rattlesnake grass, now ripe.

I find many high blueberries, quite fresh, overhanging the south shore of Walden.

I find, all about Walden, close to the edge on the steep bank, and at Brister's Spring, a fine grass now generally past prime, *Agrostis perennans*,[1] thin grass, or hair grass, on moist ground or near water. The branches of the panicle are but slightly purplish.

Sept. 6. 6 A. M. — To Merrick's shore.

Hear a warbling vireo, sounding very rare and rather imperfect. I think this is what I have mistaken for the young purple finch note.

Also hear apparently a yellow-throated vireo.

That fine spreading-panicled dark-purple grass, now rising all along the river near the waterside, is *Panicum agrostoides;* in prime. That finer and narrower-panicled, now out of bloom, is red-top, or else white bent; with the former.

River risen still higher, and weeds covered.

P. M. — To Ledum Swamp.

Going over Clamshell Plain, I see a very large flock of a hundred or more cowbirds about some cows. They whirl away on some alarm and alight on a neighboring rail fence, close together on the rails, one above another. Then away they whirl and settle on a white oak top near me. Half of them are evidently quite young birds, hav-

[1] *Vide* Sept. 7.

ing glossy black breasts with a drab line down middle. The heads of all are light-colored, perhaps a slaty drab, and some apparently wholly of this color.

On the hillside above Clamshell Ditch, grows that handsome grass of Sept. 1st (*vide* September 4th), evidently *Sorghum nutans* (*Andropogon* of Bigelow), chestnut beard grass, Indian grass, wood grass. It is much larger than what I saw before; is still abundantly in flower; four and a half feet high; leaves, perhaps arundinaceous, eighteen inches long; panicle, nine inches long. It is a very handsome, wild-looking grass, well enough called Indian grass, and I should have named it with the other andropogons, August 26th. With its narrow one-sided panicle of bright purple and yellow (I include the yellow anthers) often waving [?], raised high above the leaves, it looks like a narrow banner. It is of more vivid colors than its congeners, and might well have caught an Indian's eye. These bright banners are now advanced on the distant hillsides, not in large armies, but scattered troops or single file, like the red men themselves. They stand thus fair and bright in our midst, as it were representative of the race which they are named after, but for the most part unobserved. It stands like an Indian chief taking a last look at his beloved hunting-grounds. The expression of this grass haunted me for a week after I first passed and noticed it, like the glance of an eye.[1]

Aster patens past prime at Money-Diggers' Hill. *Polygonum tenue*, how long? *Solidago nemoralis* is apparently in prime on Lupine Hill; some of it past. It

[1] [*Excursions*, p. 258; Riv. 316.]

is swarming with butterflies, — yellow, small red, and large, — fluttering over it. At Ledum Pool edge, I find the *Woodwardia Virginica* fern, its fruit mostly turned deep reddish-brown. It appears to grow only close to the pool, part of the fruit forming two lines parallel with the midrib. A third part of the nesæa there is turned scarlet. *Kalmia glauca* is again in bloom. The hairy huckleberries are rather scarce and soft. They are insipid and leave a hairy skin in the mouth.

That swamp is a singularly wild place, without any natural outlet. I hear of a marsh hawk's nest there this summer. I see great spiders there of an uncommon kind, whose webs — the main supporting line — stretch six feet in the clear from spruce to spruce, as high as my head, with a dense web of the usual form some fifteen inches in diameter beneath.

Stopped and talked with W—— W—— and ate a watermelon with him on the grass. Once his senseless democracy appeared. He spoke with an ignorant pride of Buchanan's telegraphic message, of which most of us were ashamed; said he supposed he had more learning than Victoria! But the less said about them the better. Seeing a stake-driver flying up the river, he observed that when you saw that bird flying about it was a never-failing sign of a storm approaching. How many of these sayings like this arise not from a close and frequent observation of the phenomena of nature, but from a distant and casual one!

I find very common in prime by roadsides, in dry ground, etc., *Vilfa vaginæflora*, rush grass, hidden-flowered vilfa; also by Corner roadside, beyond brooks,

Panicum filiforme with and like *P. sanguinale*, apparently in prime, and with last fills the old mullein-field in front of Bear Garden Hill.

Is that narrowly-linear-leaved potamogeton, all immersed and now forming dense beds in the Assabet, a distinct species, or only the immersed leaves of one? *Vide* pressed.

A year ago last spring I gave to Edith Emerson and to Sophia some clasping hound's-tongue seeds, it being very rare hereabouts, wishing to spread it. Now and for a long time it has been a pest in the garden (it does not bloom till the second year), by its seeds clinging to our clothes. Mrs. E. has carried it to Boston thus, and I have spent twenty minutes at once in clearing myself of it. So it is in a fair way to be dispersed.

Sept. 7. P. M. — To Assabet Bath.

I turn Anthony's corner. It is an early September afternoon, melting warm and sunny; the thousands of grasshoppers leaping before you reflect gleams of light; a little distance off the field is yellowed with a Xerxean army of *Solidago nemoralis* between me and the sun; the earth-song of the cricket comes up through all; and ever and anon the hot z-ing of the locust is heard. (Poultry is now fattening on grasshoppers.) The dry deserted fields are one mass of yellow, like a color shoved to one side on Nature's palette. You literally wade in yellow flowers knee-deep, and now the moist banks and low hollows are beginning to be abundantly sugared with *Aster Tradescanti*.[1]

[1] [Channing, pp. 104, 105.]

J. Farmer calls those *Rubus sempervirens* berries, now abundant, "snake blackberries."

Looking for my Maryland yellow-throat's nest, I find that apparently a snake has made it the portico to his dwelling, there being a hole descending into the earth through it!

In Shad-bush Meadow the prevailing grasses (not sedges) now are the slender *Panicum clandestinum*, whose seeds are generally dropped now, *Panicum virgatum*, in large tufts, and blue-joint, the last, of course, long since done. These are all the grasses that I notice there.

What a contrast to sink your head so as to cover your ears with water, and hear only the confused noise of the rushing river, and then to raise your ears above water and hear the steady creaking of crickets in the aerial universe!

While dressing, I see two small hawks, probably partridge hawks, soaring and circling about one hundred feet above the river. Suddenly one drops down from that height almost perfectly perpendicularly after some prey, till it is lost behind the bushes.

Near the little bridge at the foot of Turtle Bank, *Eragrostis capillaris* in small but dense patches, apparently in prime (the *Poa capillaris* of Bigelow). What I have thus called in press is *E. pectinacea* (*P. hirsuta* of Bigelow). On the flat hill south of Abel Hosmer, *Agrostis scabra*, hair grass, flyaway grass, tickle grass, out of bloom; branches purplish. That of September 5th was the *A. perennans*, in lower ground.

On the railroad between tracks above Red House,

Aristida dichotoma, half a dozen inches high, hardly yet out; forked aristida, or poverty grass.

Storrow Higginson brings from Deerfield this evening some eggs to show me, — among others apparently that of the Virginian rail. It agrees in color, size, etc., according to Wilson, and is like (except, *perhaps*, in form) to one which E. Bartlett brought me a week or ten days ago, which dropped from a load of hay carried to Stow's barn! So perhaps it breeds here.[1] Also a smaller egg of same form, but dull white with very pale dusky spots, which may be that of the Carolina rail. He had also what I think the egg of the *Falco fuscatus*, it agreeing with MacGillivray's sparrow hawk's egg.

Sept. 8. 6 A. M. — On river.

It flows with a full tide. When it is thus deep its current is swift, and then its surface (commonly smooth and dark) is freckled with ripples, or rather I should say that swifter currents are here and there bursting up from below and spreading out on every side, as if the river were breaking over a thousand concealed rocks. The surface is broken and dimpled with upswelling currents.

Red oak acorns, yet green, are abundantly cut off by the squirrels.

The yellow-legs is nodding its head along the edge of the meadow. I hear also its creaking *te te te*.[2]

[1] Yes. *Vide* Sept. 9th. *Vide* Sept. 21st and Dec. 7th, and June 1st, 1859.

[2] *Vide* 18th.

Gather half my grapes, which for some time have perfumed the house.

P. M. — To Owl Swamp.

I perceive the dark-crimson leaves, quite crisp, of the white maple on the meadows, recently fallen. This is their first fall, *i. e.* of those leaves which changed long ago. They fall, then, with birches and chestnuts, etc. (lower leaves), before red maples generally begin to turn.

It is good policy to be stirring about your affairs, for the reward of activity and energy is that if you do not accomplish the object you had professed to yourself, you do accomplish something else. So, in my botanizing or natural history walks, it commonly turns out that, going for one thing, I get another thing. "Though man proposeth, God disposeth all."

Sept. 9. P. M. — To Waban Cliff.

A very hot day, — 90°, as I hear. Yesterday was hot, too. Now it is about time to gather elder-berries. Many *Viola cucullata* have opened again.

What is that short squeaking note heard from time to time from amid the weeds on the west side the river at Hubbard's Bath? There are broad patches, sometimes of several acres, on the edge of the meadow, where it is wettest and weediest, which the farmers do not mow. There especially stands the brown-headed wool-grass. There are small tracts still, as it were, in their primitive condition, — wild tracts where the bittern rises and where, no doubt, the meadow-hen lurks. (Was it the note of the last I heard?)

Heard a short plover-like note from a bird flying high across the river.

Watched a little dipper [1] some ten rods off with my glass, but I could see no white on the breast. It was all black and brownish, and head not enlarged. Who knows how many little dippers are sailing and sedulously diving now along the edge of the pickerel-weed and the button-bushes on our river, unsuspected by most? This hot September afternoon all may be quiet amid the weeds, but the dipper, and the bittern, and the yellow-legs, and the blue heron, and the rail are silently feeding there. At length the walker who sits meditating on a distant bank sees the little dipper sail out from amid the weeds and busily dive for its food along their edge. Yet ordinary eyes might range up and down the river all day and never detect its small black head above the water.

It requires a different intention of the eye in the same locality to see different plants, as, for example, *Juncaceæ* and *Gramineæ* even; *i. e.*, I find that when I am looking for the former, I do not see the latter in their midst. How much more, then, it requires different intentions of the eye and of the mind to attend to different departments of knowledge! How differently the poet and the naturalist look at objects! A man sees only what concerns him. A botanist absorbed in the pursuit of grasses does not distinguish the grandest pasture oaks. He as it were tramples down oaks unwittingly in his walk.

Bidens cernua, how long?

[1] ?? *Vide* 30th.

The river is about at its height to-day or yesterday. Much bur-reed and heart-leaf is floating and washed up, apparently the first important contribution to the river wrack.

The sportsman will paddle a boat now five or six miles, and wade in water up to his knees, being out all day without his dinner, and think himself amply compensated if he bags two or three yellow-legs. The most persistent and sacrificing endeavors are necessary to success in any direction.

Woodbine scarlet, like a brilliant scarf on high, wrapped around the stem of a green tree. By a blush betrays where it hangs upon an elm.

I find an abundance of beaked hazelnuts at Blackberry Steep, one to three burs together, but, gathering them, I get my fingers full of fine shining bristles, while the common hazel burs are either smooth or covered with a softer glandular down; *i. e.*, its horns are *brazen-tipped.*

Under the rocks near the slippery elm, the *Gymnostichum Hystrix*, bottle-brush grass, hedgehog grass, long done.

Rice says he saw two meadow-hens when getting his hay in Sudbury some two months ago, and that they breed there. They kept up a peculiar note. My egg (named Sept. 7th) was undoubtedly a meadow-hen's *Rallus Virginiana.* R. says that he has caught pigeons which had ripe grapes in their crops long before any were ripe here, and that they came from the south-west.

We live in the same world with the Orientals, far off

as they may seem. Nature is the same here to a chemist's tests. The weeping willow (*Salix Babylonica*) will grow here. The peach, too, has been transplanted, and is agreeable to our palates. So are their poetry and philosophy near and agreeable to us.

Sept. 10. Tower-mustard in bloom again. A musquash-house begun.

Sept. 12. *Sunday.* P. M. — To Cliffs.

The handsome crimson-tipped hazelnut burs now and for some time have reminded us that it was time to gather these nuts. They are worth gathering, if only to see the rich color of the fruit brought together in a quantity.

Lycopodium complanatum, how long? Have seen the pigeon's-egg fungus in pastures some time. Yew berries still hold on. The cinnamon fern has begun to yellow and wither. How rich in its decay! *Sic transit gloria mundi!* Die like the leaves, which are most beautiful in their decay. Thus gradually and successively each plant lends its richest color to the general effect, and in the fittest place, and passes away. Amid the October woods we hear no funereal bell, but the scream of the jay. Coming to some shady meadow's edge, you find that the cinnamon fern has suddenly turned this rich yellow. Thus each plant surely acts its part, and lends its effect to the general impression. See petty morel berries ripe.

Woodsia Ilvensis under the cave at Cliffs in fruit.

Very heavy rain all yesterday afternoon, and to-day it is somewhat cooler and clearer and the wind more

northwesterly, and I see the unusual sight of ripples or waves curving up-stream off Cardinal Shore, so that the river might seem to be flowing that way. The mountains are of a darker blue.

The spring on the west side of Fair Haven Hill is nearly dry; there is no stream flowing from it. What a disappointment to a herd of cows to find their accustomed spring dry! Even in that little hollow on the hillside, commonly moistened by the spring, grow the soft rush, rhyncospora, etc. What an effect a little moisture on a hillside produces, though only a rod square! The *Juncaceæ* and *Cyperaceæ* soon find it out and establish themselves there.

The *Panicum filiforme* is very abundant in that old mullein-field of Potter's, by the Corner road. Its slender culms are purple, and, seen in the right light, where they stand thick, they give a purple gleam to the field. More purple far than the *P. sanguinale*. Some small red maples by water begun to redden.

In Hubbard's ditched meadow, this side his grove, I see a great many large spider's webs stretched across the ditches, about two feet from bank to bank, though the thick woven part is ten or twelve inches. They are parallel, a few inches or a foot or more apart, and more or less vertical, and attached to a main cable stretched from bank to bank. They are the yellow-backed spider, commonly large and stout but of various sizes. I count sixty-four such webs there, and in each case the spider occupies the centre, head downward. This is enough,

methinks, to establish the rule. They are not afraid of turning their brains then. Many insects must be winging their way over this small river. It reminds me of the Indians catching ducks at Green Bay with nets in old times.

Sept. 13. P. M. — To Annursnack.

Solidago puberula, apparently in prime and handsome, roadside, Colburn's Hill.

I noticed the black willows quite imbrowned on the 10th, and the button-bushes beginning to look yellowish.

A. Hosmer is pleased because from the cupola of his new barn he can see a new round-topped mountain in the northwest. Is curious to know what one it is. Says that if he lived as near Annursnack as Heywood does, he should go up it once a week, but he supposes that Heywood does not go up it more than once a year. What is that grass still in bloom a foot or more in height in Heywood's potato-field, some fifty rods west of houseleek? It is somewhat like what I have wrongly called *Danthonia spicata*, but with a longer and a round spike, etc., etc. *Vide* press. There is a man there mowing the *Panicum Crus-galli*, which is exceedingly rank and dense, completely concealing the potatoes, which have never been hoed, it was so wet. He saves this grass and says the cattle like it well.

I notice that the large ant-hills, though they prevent bushes and ferns from growing where they are built, keeping open a space four to seven feet wide in their midst, do not keep out grass, but they are commonly little grassy mounds with bare tops.

Looking from the top of Annursnack, the aspect of the earth generally is still a fresh green, especially the woods, but many dry fields, where apparently the June-grass has withered uncut, are a very pale tawny or lighter still. It is fit that some animals should be nearly of this color. The cougar would hardly be observed stealing across these plains. In one place I still detect the ruddiness of sorrel.

Euphorbia hypericifolia still, and gone to seed, on the top of Annursnack.

From many a barn these days I hear the sound of the flail. For how many generations this sound will continue to be heard here! At least until they discover a new way of separating the chaff from the wheat.

Saw *one* raking cranberries on the 10th; rather early.

A small dense flock of wild pigeons dashes by over the side of the hill, from west to east, — perhaps from Wetherbee's to Brooks's, for I see the latter's pigeon-place. They make a dark slate-gray impression.

Fringed gentian out well, on easternmost edge of the Painted-Cup Meadows, by wall.[1]

Saw a striped snake run into the wall, and just before it disappeared heard a loud sound like a hiss! I think it could hardly have been made by its tail among leaves.

The squirrels know better than to open unsound hazelnuts. At most they only peep into them. I see some on the walls with a little hole gnawed in them, enough to show that they are empty.

Muskmelons and squashes are turning yellow in the

[1] Caroline Pratt tells me the 20th that her father found it out full a fortnight before that date!

gardens, and ferns in the swamps. Hear many warbling vireos these mornings. Many yellow butterflies in road and fields all the country over.

Sept. 14. Half a dozen *Bidens chrysanthemoides* in river, not long. Picked eleven of those great potato-worms, caterpillars of the sphinx moth, off our privet. The *Glyceria obtusa*, about eighteen inches high, quite common, in the meadow west of Brooks Clark's, has turned a dull purple, probably on account of frosts.

Sept. 15. I have not seen nor heard a bobolink for some days at least, numerous as they were three weeks ago, and even fifteen days. They depart early. I hear a nuthatch occasionally, but it reminds me of winter.

P. M. — To Walden.

I paddle about the pond, for a rarity. The eriocaulon, still in bloom there, standing thinly about the edge, where it is stillest and shallowest, in the color of its stem and radical leaves is quite in harmony with the glaucous water. Its radical leaves and fine root-fibres form a peculiar loose but thick and continuous carpet or rug on the sandy bottom, which you can lift up in great flakes, exposing the fine white beaded root-fibres. This evidently affords retreats for the fishes, musquash, etc., etc., and you can see where it has been lifted up into galleries by them. I see one or two pickerel poised over it. They, too, are singularly greenish and transparent, so as not to be easily detected, only a little more yellowish than the water and the eriocaulon; ethereal fishes, not far from

the general color of heart-leaf and target-weed, unlike the same fish out of water.

I notice, as I push round the pond close to the shore, with a stick, that the weeds are eriocaulon, two or three kinds of potamogeton, — one with a leaf an inch or two long, one with a very small, floating leaf, a third all immersed, four or five inches high and yellowish-green (this (*vide* press) is apparently an immersed form of *P. hybridus*), — target-weed, heart-leaf, and a little callitriche. There is but little of any of them, however, in the pond itself. It is truly an ascetic pond, and lives very sparingly on vegetables at any rate.

I gather quite a lot of perfectly fresh high blueberries overhanging the south side, and there are many green ones among them still. They are all shrivelled now in swamps commonly.

The target-weed still blooms a little in the Pout's Nest, though half the leaves have turned a reddish orange, are sadly eaten, and have lost nearly all their gelatinous coating. But perfect fresh green leaves have expanded and are still expanding in their midst. The whole pool is covered, as it were, with one vast shield of reddish and green scales. As these leaves change and decay, the firmer parts along the veins retain their life and color longest, as with the heart-leaf. The leaves are eaten in winding lines about a tenth of an inch wide, scoring them all over in a curious manner, and also in spots. These look dark or black because they rest on the dark water.

Looking closely, I am surprised to find how many frogs, mostly small, are resting amid these target leaves,

with their green noses out. Their backs and noses are exactly the color of this weed. They retreat, when disturbed, under this close shield. It is a frog's paradise.

I see, in the paths, pitch pine twigs gnawed off, where no cones are left on the ground. Are they gnawed off in order to come at the cones better?

I find, just rising above the target-weed at Pout's Nest, *Scirpus subterminalis*, apparently recently out of bloom. The culms two to three feet along, *appearing* to rise half an inch above the spikes. The long, linear immersed leaves coming off and left below

At entrance of the path (on Brister's Path) near Staples and Jarvis bound, apparently the true *Danthonia spicata*, still green. It is generally long out of bloom and turned straw-color. I will call the other (which I had so named), of Hosmer's meadow, *for the present*, meadow oat grass, as, indeed, I did at first.

A hummingbird in the garden.

There is a southeast wind, with clouds, and I suspect a storm brewing. It is very rare that the wind blows from this quarter.

Sept. 16. When I awake I hear the sound of steady heavy rain. A southeast storm. Our peach tree limbs are broken off by it. It lasts all day, rains a great deal, and scatters many elm boughs and leaves over the street. This wind does damage out of proportion to its strength. The fact is, the trees are unprepared to resist a wind from this quarter and, being loaded with foliage and fruit, suffer so much the more. There will be many windfalls, and fruit [will] be cheap for awhile.

It rained as hard as I remember to have seen it for about five minutes at six o'clock P. M., when I was out, and then suddenly, as it were in an instant, the wind whirled round to the westward, and clear sky appeared there and the storm ended, — which had lasted all day and part of the previous night. All this occurred while I was coming from the post-office. The street is strewn with a great many perfectly green leaves, especially of elms, and branches, large and small, also for the most part quite sound. It is remarkable that these tough and slender limbs can be thus twisted off.

Sept. 17. P. M. — Ride to Beaver Pond and beyond.

I see several apple trees that were blown down yesterday and some pretty large elm limbs. The orchards are strewn with windfalls, mostly quite green.

Paddle round Beaver Pond in a boat, which I calked with newspaper. It has a very boggy and generally inaccessible shore, now more inaccessible than usual on account of the rain and high water. A singularly muddy hole.

See elecampane, quite out of bloom. Also the *Solidago odora*, which I see has just done.

River rising fast, from yesterday's rain. Cooler weather now for two or three days, so that I am glad to sit in the sun on the east side of the house mornings. Methinks, too, that there are more sparrows in flocks now about in garden, etc.

Sept. 18. P. M. — Sail to Fair Haven Pond.

It is a fine September day. The river is still rising on

account of the rain of the 16th and is getting pretty well over the meadows. As we paddle westward, toward College Meadow, I perceive that a new season has come. The air is incredibly clear. The surface of both land and water is bright, as if washed by the recent rain and then seen through a much finer, clearer, and cooler air. The surface of the river sparkles. I am struck by the soft yellow-brown or brown-yellow of the black willows, stretching in cloud-shaped wreaths far away along the edges of the stream, of a so much mellower and maturer tint than the elms and oaks and most other trees seen above and beyond them. It is remarkable that the button-bushes beneath and mingling with them are of exactly the same tint and in perfect harmony with them. They are like two interrupted long brown-yellow masses of verdure resting on the water, a peculiarly soft and warm yellow. This is, perhaps, the most interesting autumnal tint as yet.

Above the railroad bridge, with our sail set, wind north-northwest, we see two small ducks, dusky, — perhaps dippers,[1] or summer ducks, — and sail within four rods before they fly. They are so tame that for a while we take them for tame ducks.

The pads are drowned by the flood, but I see one pontederia spike rising blue above the surface. Elsewhere the dark withered pontederia leaves show themselves, and at a distance look like ducks, and so help conceal them. For the ducks are now back again in numbers, since the storm and freshet.

We can just go over the ammannia meadow.

[1] Too large. *Vide* 30th.

It is a wonderful day. As I look westward, this fine air — "gassy," C. calls it — brings out the grain of the hills. I look into the distant sod. This air and sun, too, bring out all the yellow that is in the herbage. The very grass or sedge of the meadow is the same soft yellow with the willows, and the button-bush harmonizes with them. It is as if the earth were one ripe fruit, like a muskmelon yellowed in the September sun; *i. e.*, the sedges, being brought between me and the sun, are seen to be ripe like the cucumbers and muskmelons in the garden. The earth is yellowing in the September sun. It occurs to me to put my knee on it, press it gently, and hear if it does not crack within as if ripe. Has it not, too, a musty fragrance, as a melon?

At Clamshell we take the wind again, and away we glide. I notice, along the edge of the eastern meadow wood, some very light-colored and crisped-looking leaves, apparently on small maples, or else swamp white oaks, as if some vine ran over the trees, for the leaves are of a different color from the rest. This must be the effect of frost, I think.

The sedge and wool-grass all slant strongly southward or up the stream now, which makes a strange impression on the sailor, but of late the wind has been north and stronger than the sluggish current of the river.

The small white pines on the side of Fair Haven Hill now look remarkably green, by contrast with the surrounding shrubbery, which is recently imbrowned. You are struck by their distinct liquid green, as if they had but just sprung up there. All bright colors seem brighter now for the same reason, *i. e.* from contrast with the

duller browns and russets. The very cows on the hillside are a brighter red amid the pines and the brown hazels. The perfectly fresh spike of the *Polygonum amphibium* attracts every eye now. It is not past its prime. C. thinks it is exactly the color of some candy. Also the *Polygala sanguinea* on the bank looks redder than usual.

Many red maples are now partly turned dark crimson along the meadow-edge.

Near the pond we scare up twenty or thirty ducks, and at the pond three blue herons. They are of a hoary blue. One flies afar and alights on a limb of a large white pine near Well Meadow Head, bending it down. I see him standing there with outstretched neck.

Finding grapes, we proceeded to pluck them, tempted more by their fragrance and color than their flavor, though some were very palatable. We gathered many without getting out of the boat, as we paddled back, and more on shore close to the water's edge, piling them up in the prow of the boat till they reached to the top of the boat, — a long sloping heap of them and very handsome to behold, being of various colors and sizes, for we even added green ones for variety. Some, however, were mainly green when ripe. You cannot touch some vines without bringing down more single grapes in a shower around you than you pluck in bunches, and such as strike the water are lost, for they do not float. But it is a pity to break the handsome clusters.

Thus laden, the evening air wafting the fragrance of the cargo back to us, we paddled homeward. The cooler air is so clear that we see Venus plainly some time before sundown. The wind had all gone down, and the water

was perfectly smooth. The sunset was uncommonly fair. Some long amber clouds in the horizon, all on fire with gold, were more glittering than any jewelry. An Orient city to adorn the plates of an annual could not be contrived or imagined more gorgeous. And when you looked with head inverted the effect was increased tenfold, till it seemed a world of enchantment. We only regretted that it had not a due moral effect on us scapegraces.

Nevertheless, when, turning my head, I looked at the willowy edge of Cyanean Meadow and onward to the sober-colored but fine-grained Clamshell Hills, about which there was no glitter, I was inclined to think that the truest beauty was that which surrounded us but which we failed to discern, that the forms and colors which adorn our daily life, not seen afar in the horizon, are our fairest jewelry. The beauty of Clamshell Hill, near at hand, with its sandy ravines, in which the cricket chirps. This is an Occidental city, not less glorious than that we dream of in the sunset sky.

It chanced that all the front-rank polygonum, with its rosaceous spikes, was drowned by the flood, but now, the sun having for some time set, with our backs to the west we saw the light reflected from the slender clear white spikes of the *P. hydropiperoides* (now in its prime), which in large patches or masses rise about a foot above the surface of the water and the other polygonum. Under these circumstances this polygonum was very pretty and interesting, only its more presentable part rising above the water.

Mr. Warren brings to me three kinds of birds which he has shot on the Great Meadows this afternoon, *viz.*

two *Totanus flavipes*, such as I saw the 8th (there were eight in the flock, and he shot seven), one *Rallus Carolinus*, and one peetweet. I doubt if I have seen any but the *T. flavipes* here, since I have measured this.[1] Wilson says that this does not penetrate far inland, though he sees them near Philadelphia after a northeast storm.

The above rail corresponds to the land rail or corncrake of Europe in form and habits. In Virginia is called the sora; in South Carolina, the coot. It is the game rail of the South, and the only species of the genus *Crex* in America. Note *kuk kuk kuk*. Go to Hudson's Bay and thereabouts to breed. This was a male, having a black throat and black about base of bill. Peabody says that they are seen here only in the autumn on their return from the north, though Brewer thinks their nest may be found here. In the genus *Crex*, the bill is stout and shorter than the head. In *Rallus* (as in *R. Virginianus*), it is longer than the head and slender. In the latter, too, the crown and whole upper parts are black, streaked with brown; the throat, breast, and belly, orange-brown; sides and vent, black tipped with white; legs and feet, dark red-brown; none of which is true of the *R. Carolinus*.

I notice that the wing of the peetweet, which is about two inches wide, has a conspicuous and straight-edged white bar along its middle on the under side for half its length. It is seven eighths of an inch wide and, being quite parallel with the darker parts of the wing, it produces that singular effect in its flying which I have noticed. This line, by the way, is not mentioned by Wil-

[1] Or very likely I have. *Vide* 25th.

son, yet it is, perhaps, the most noticeable mark of the bird when flying! The under side of the wings is commonly slighted in the description, though it is at least as often seen by us as the upper. Wilson says that "the whole lower parts are beautifully marked with roundish spots of black, . . . but the young are pure white below." May I not have made the young the *T. solitarius?* But the young are white-spotted on wings.

I think that I see a white-throated sparrow this afternoon.

Sept. 19. *Sunday.* P. M. — To Cassandra Ponds.

We go through Sedge Hollow. See a small hole, perhaps a skunk's, in that hollow, and, about the mouth, fragments of a hornets' or wasps' nest. I knew that foxes were said to tear in pieces these nests for the sake of the grubs or old hornets left in them. Perhaps the skunk does.

These dry, sedgy hollows are peculiar and interesting to me. The fine, thick sedge makes a soft bed to recline on, and is recurved and lodging like a curly head. These dry hollows, side by side with the deeper and wet ones, are surrounded by hazel bushes and panicled andromeda instead of alders and willows. There is this sort of analogy to the wet ones, or ponds. In the lowest part, even here, I perceive that a different and coarser kind of sedge grows. Along the middle and bottom of the hollows is the indistinct trail of wild animals — foxes, etc. — and sportsmen. C. thinks this might be called Fox Path.

As I stand on the shore of the most westerly Cassandra Pond but one, I see in the air between me and the sun

those interesting swarms of minute light-colored gnats,[1] looking like motes in the sun. These may be allied to the winter gnat of Kirby and Spence. Do they not first appear with cooler and frosty weather, when we have had a slight foretaste of winter? Then in the clear, cool air they are seen to dance. These are about an eighth of an inch long, with a greenish body and two light-colored plumes in front; the wings not so long as the body. So I think they are different from those over the river in the spring. I see a dozen of these choirs within two or three rods, their centres about six feet above the surface of the water andromeda. These separate communities are narrow horizontally and long vertically, about eighteen inches wide and densest in the middle, regularly thinning to nothing at the edges. These individuals are constantly gyrating up and down, cutting figures of 8 like the water-bug, but keeping nearly about the same place.

It is to me a very agreeable reminder of cooler weather.

Hear a chewink's *chewink*. But how ineffectual is the note of a bird now! We hear it as if we heard it not, and forget it immediately. In spring it makes its due impression, and for a long time will not have done echoing, as it were, through our minds. It is even as if the atmosphere were in an unfavorable condition for this kind of music. Every musician knows how much depends on this. Going through low woods I see a white, dusty or mealy-looking mildew on the leaves, — oaks, etc., — the effects of the dog-days or mould season.

[1] Apparently male *Tipulidæ* or crane-flies. *Vide Library of Entertaining Knowledge*, "Insect Transformations," p. 363.

Sept. 20. The river probably reaches its highest since June to-day. The Maryland yellow-throat is here. Hear warbling vireos still, in the elms.

Miss Pratt shows me a small luminous bug found on the earth floor of their shed (I think a month ago). Had two bright points in its tail, as bright or brighter than the glow-worm. *Vide* it in paper. It is now dried, three eighths of an inch long by somewhat more than one eighth wide, ovate-oblong with a broad and blunt head, dull straw-color, clear rose-red on the sides, composed of many segments, which give it a dentate appearance on the edges. A broad flattish kind of shield in front, also red and straw-color.

Sept. 21. Go to Cape Ann.

A very warm day.

A. M. — Go with Russell to the rooms of the Essex Institute, — if that is the name. See some Indian pottery from the Cayuga Reservation, fragments, very pale brick-color three eighths of an inch thick, with a rude ornament (apparently made with the end of a stick) of this form and size: the lines representing slight hollows in a row around it. Saw a stone, apparently slate, shaped like small "sinkers," but six inches by three and a half with a small handle, found near here. Was it a sinker or pestle?

(On the 24th, at the East India Marine Hall, saw a circular stone mortar about six inches in diameter, and a stone exactly like the above in it, described as pestle and mortar found in making Salem Turnpike. Were they

together? Also, at the last place, what was called the blade of an Indian knife found on Governor Endicott's farm, broken, three or four inches long, of a light-colored kind of slate, quite thin, with a back. It might have been for skinning.)

At the Essex Institute (?), — if that 's the name, — the eggs of the *Rallus Virginianus*, labelled by Brewer, but much smaller than those I have seen, and nearly white, with dull-brown spots! Can mine be the egg of the *R. crepitans*, though larger than mine? Their eggs of the *Sterna hirundo* look like mine which I have so called; also do those of the black-headed gull, which I do not perceive in Peabody. Looked over the asters, goldenrods, and willows in their herbarium, collected and named by Oakes, Lapham, Russell, and *Cassi* — something. Oakes's *Salix sericea*, also Marshall's, and what O. calls *grisea* of Willdenow, is the same I so call, by the white maple at Assabet. What O. calls *S. phyllicifolia* from White Mountains, having only sterile catkins, — his specimen, — is apparently the one I have from there together with the *repens*.

P. M. — Walked with Russell to Marblehead above railroad.

Saw, in Salem, *Solidago Canadensis*, considerably past prime; our three-ribbed one done; *Spartina cynosuroides;* (was that the *S. juncea*, seven feet high, with a broad leaf, which I mistook for the above? Very common on edge of marshes); apparently *Scirpus pungens*, two to four feet high; *Polygonum aviculare*, appar-

ently peculiar; swamp thistle, still abundant; *Trifolium procumbens*, still abundant; *Aster Novæ-Angliæ*, dark-violet or lilac-purple, in prime or a little past, three quarters of a mile down railroad; also by shore in Manchester, the 22d; *Ruppia maritima*, in a ditch. In Marblehead, *Aster cordifolius*, abundant, railroad; *Woodsia Ilvensis*. R. pointed out *Juncus bufonius* (??) (but did not know it); it was *tenuis*-like and probably that. *Juncus Greenii* (?) (*tenuis*-like), dense-flowered, on high sea-bank, sea side of Marblehead. Herb-robert, near shore, done. *Datura Stramonium* var. *Tatula*, done there, but out at Rockport; got seeds. Also various lichens. Got *Parmelia parietina*, *elegans*, and *rubina* on the rocks. Saw, but did not get, *P. murorum*. *Cetraria Islandica*. R. said that that I saw at the White Mountains was bitter. *Endocarpon miniatum* (which we have) on rocks. *Peltigera polydactyla*. *Umbilicaria Muhlenbergii*, rocks by sea. That common crustaceous lichen on rocks, — black fruit prettily scattered on a white ground, — which reminds me of maps, is *Lecidea atroalba*. R. thought that my small umbilicaria on Monadnock and Lafayette was *U. erosa* or *hyperborea*.

He knew a *Carex lupulina* because the beaks were recurved.

Called Marblehead coast greenstone generally with dykes in sienite.

Saw artichokes out in several places, at some time. Have a sort of Spouting Horn by shore. Returned by some very deep hollows in Salem (like the Truro ones) called the Dungeons! ! as our Dunge Hole.

R. gave me from his garden corns of the true [?]

squirrel-corn corydalis, which I plant, and what Tracy gave him for *Utricularia intermedia* from ——, not in flower, though he says that T. has examined the flowers. It looks like mine. What I have called the clustered blackberry he has raised from the seed he got here, and this second year (or third) it has run as long as the common, but, perhaps because in rich soil and the shade, no flowers or fruit.

Saw no *Aster Tradescanti* in this walk, but an abundance of *A. multiflorus* in its prime, in Salem and Marblehead.

Sept. 22. A clear cold day, wind northwest. Leave Salem for the Cape on foot.

Near Beverly Bridge, crossed over that low and flat part of Salem where the first settlement was made and Arabella Stewart [*sic*] [1] is supposed to have been buried.

Soon struck off to the shore in Beverly. See the *discolor* thistle on a sandy beach, and *Phaseolus diversifolius* (three-lobed bean vine), with pretty terete long pods, some ripe, but a few flowers still. *Aster linifolius*, perhaps still in prime, — though it has a flexuous stem, — in a marsh, and lyme-grass, apparently like ours, along edge of marsh. Dined on the edge of a high rocky cliff, quite perpendicular, on the west side of entrance of Manchester Harbor.

One mile southeast of the village of Manchester, struck the beach of "musical sand," just this side of a large, high, rocky point called Eagle Head. This is a curving sandy beach, maybe a third of a mile long by

[1] [The Lady Arbella Johnson?]

some twelve rods wide. (We also found it on a similar but shorter beach on the east side of Eagle Head.) We first perceived the sound when we scratched with our umbrella or finger swiftly and forcibly through the sand; also still louder when we struck forcibly with our heels "scuffing" along. The wet or damp sand yielded no peculiar sound, nor did that which lay loose and deep next the bank, but only the more compact and dry. The sound was not at all musical, nor was it loud. Fishermen might walk over it all their lives, as indeed they have done, without noticing it. R., *who had not heard it*, was about right when he said it was like that made by rubbing on wet glass with your fingers. I thought it as much like the sound made in waxing a table as anything. It was a squeaking sound, as of one particle rubbing on another. I should say it was merely the result of the friction of peculiarly formed and constituted particles. The surf was high and made a great noise, yet I could hear the sound made by my companion's heels two or three rods distant, and if it had been still, probably could have heard it five or six rods.

We kept thence along the rocky shore to Kettle Cove, where, however, I did not find any rocks like Lewis's.

Somewhere thereabouts *Scirpus maritimus*, with its great spikes now withered. In the marsh at Kettle Cove, *Gerardia maritima*, apparently in prime, four or five inches high; *Euphorbia polygonifolia*, six inches in diameter. *Spartina glabra* in the salt water of the cove.

The shore, thus far, from Beverly Bridge had been a succession of bold rocky points half a mile apart, with sometimes curving sandy beaches between, or else rocks.

We now kept the road to Gloucester, leaving the shore a mile or more to the right, wishing to see the magnolia swamp. This was perhaps about a mile and a half beyond Kettle Cove. After passing over a sort of height of land in the woods, we took a path to the left, which within a few rods became a corduroy road in the swamp. Within three or four rods on the west side of this, and perhaps ten or fifteen from the highroad, was the magnolia. It was two to seven or eight feet high, but distinguished by its large and still fresh green leaves, which had not begun to fall. I saw last year's shoots which had died down several feet, and probably this will be the fate of most which has grown this year. The swamp was an ordinary one, not so wet but we got about very well. The bushes of this swamp were not generally more than six feet high. There was another locality the other side of the road.

Cooked our supper in a salt marsh some two miles this side of Gloucester, in view of the town. We had cooked our tea for dinner with dead bayberry bushes; now we used the chips and bark which the tide had deposited in little parcels on the marsh, having carried water in our dippers from a brook, a quarter of a mile. There was a large patch of samphire turned a bright crimson, very conspicuous, near by on the flat marsh, the more conspicuous because large and in the midst of the liquid green of the marsh. We sat on some stones which we obtained flat in the marsh till starlight.

I had seen in this day's walk an abundance of *Aster cordifolius* (but no *A. undulatus*); also saw *A. corymbosus*, which is a handsome white wood aster; and, very

common, what I called *A. longifolius*, with shorter thick, clasping leaves and growing in drier ground than ours, methinks; also, all along the road, the up-country hard, small, mulberry-shaped high blackberry, and many still holding on. This may be due to the cool air of the Cape. They were quite sweet and good. *Vide* a specimen. The foliage had but just fairly begun to change.

Put up in Gloucester.

Sept. 23. Another fair day and wind northwest, but rather warmer. We kept along the road to Rockport, some two miles or more, to a "thundering big ledge" by the road, as a man called it; then turned off toward the south shore, at a house with two very large and old pear trees before it. Part of the house was built by a Witham, one of the first settlers, and the place or neighborhood used to be called "the Farms." Saw the *F. hyemalis* flitting along the walls, and it was cool enough for them on this cape. In a marsh by the shore, where was a very broad curving sandy beach, the shore of a cove, found the *Ranunculus Cymbalaria*, still in bloom, but mostly in fruit. *Glaux maritima* (?), nearly prostrate, with oblong leaves. *Triglochin palustris* in fruit.

An eleocharis, apparently marine, with lenticular fruit and a wrinkled mitre-shaped beak. *Spergularia rubra*, etc., samphire, etc.

The narrow road — where we followed it — wound about big boulders, past small, often *bevel*-roofed cottages where sometimes was a small flag flying for a vane. The number and variety of bevelled roofs on the

Cape is surprising. Some are so nearly flat that they reminded me of the low brows of monkeys.

We had already seen a sort of bare rocky ridge, a bare boulder-covered back of the Cape, running northeasterly from Gloucester toward Rockport and for some three miles quite bare, the eastern extremity of the Cape being wooded. That would be a good place to walk.

In this marsh, saw what I thought the solitary tattler, quite tame.

Having reached the shore, we sat under the lee of the rocks on the beach, opposite Salt Island. A man was carting seaweed along the shore between us and the water, the leather-apron kind, which trailed from his cart like the tails of oxen, and, when it came between us and the sun, was of a warm purple-brown glow. Half a mile further, beyond a rocky head, we came to another curving sandy beach, with a marsh between it and the Cape on the north. Saw there, in the soft sand, with beach-grass, apparently *Juncus Balticus* (?), very like but not so stout (!) as *Juncus effusus*.

Met a gunner from Lynn on the beach, who had several pigeons which he had killed in the woods by the shore. Said that they had been blown off the mainland. Second, also a kingfisher. Third, what he called the "ox-eye," about size of peetweet but with a short bill and a blackish-brown crescent on breast, and wing above like peetweet's, but no broad white mark below. Could it be *Charadrius semipalmatus?* Fourth, what he called a sandpiper, very white with a long bill. Was this *Tringa arenaria?* Fifth, what I took to be a solitary tattler, but

possibly it was the pectoral sandpiper, which I have seen since.

On the edge of the beach you see small dunes, with white or fawn-colored sandy sides, crowned with now yellowish smilax and with bayberry bushes. Just before reaching Loblolly Cove, near Thatcher's Island, sat on a beach composed entirely of small paving-stones lying very loose and deep.

We boiled our tea for dinner on the mainland opposite Straitsmouth Island, just this side the middle of Rockport, under the lee of a boulder, using, as usual, dead bayberry bushes for fuel. This was, indeed, all we could get. They make a very quick fire, and I noticed that their smoke covered our dippers with a kind of japan which did not crock or come off nearly so much as ordinary soot.

We could see the Salvages very plainly, apparently extending north and south, the Main Rock some fifteen or twenty rods long and east-northeast of Straitsmouth Island, apparently one and a half or two miles distant, with half-sunken ledges north and south of it, over which the sea was breaking in white foam. The ledges all together half a mile long. We could see from our dining-place Agamenticus, some forty miles distant in the north. Its two sides loomed thus: so that about a third of the whole was lifted up, while a small elevation close to it on the east, which afterward was seen to be a part of it, was wholly lifted up.

Rockport well deserves its name, — several little rocky harbors protected by a breakwater, the houses at Rockport Village backing directly on the beach. At Folly Cove, a wild rocky point running north, covered with

beach-grass. See now a mountain on the east of Agamenticus. Isles of Shoals too low to be seen. Probably land at Boar's Head, seen on the west of Agamenticus, and then the coast all the way from New Hampshire to Cape Ann plainly, Newburyport included and Plum Island. Hog Island looks like a high hill on the mainland.

It is evident that a discoverer, having got as far west as Agamenticus, off the coast of Maine, would in clear weather discern the coast trending southerly beyond him as far round as Cape Ann, and if he did not wish to be embayed would stand across to Cape Ann, where the Salvages would be the outmost point.

At Annisquam we found ourselves in the midst of boulders scattered over bare hills and fields, such as we had seen on the ridge northerly in the morning, *i. e.*, they abound chiefly in the central and northwesterly part of the Cape. This was the most peculiar scenery of the Cape. We struck inland southerly, just before sundown, and boiled our tea with bayberry bushes by a swamp on the hills, in the midst of these great boulders, about halfway to Gloucester, having carried our water a quarter of a mile, from a swamp, spilling a part in threading swamps and getting over rough places. Two oxen feeding in the swamp came up to reconnoitre our fire. We could see no house, but hills strewn with boulders, as if they had rained down, on every side, we sitting under a shelving one. When the moon rose, what had appeared like immense boulders half a mile off in the horizon now looked by contrast no larger than nutshells or buri-nut against the moon's disk, and she was the biggest boulder of all. When we had put out our bayberry fire, we heard

a squawk, and, looking up, saw five geese fly low in the twilight over our heads. We then set out to find our way to Gloucester over the hills, and saw the comet very bright in the northwest. After going astray a little in the moonlight, we fell into a road which at length conducted us to the town.

As we bought our lodging and breakfast, a pound of good ship-bread, which cost seven cents, and six herring, which cost three cents, with sugar and tea, supplied us amply the rest of the two days. The selection of suitable spots to get our dinner or supper led us into interesting scenery, and it was amusing to watch the boiling of our water for tea. There is a scarcity of fresh water on the Cape, so that you must carry your water a good way in a dipper.

Sept. 24. What that singular spiny plant, otherwise like chenopodium, which I found on a wharf in Salem?

Saw at the East India Marine Hall a bay lynx killed in Danvers July 21st (I think in 1827); another killed in Lynnfield in March, 1832. These skins were, now at any rate, quite light dirty-whitish or white wolfish color, with small pale-brown spots. The animals much larger than I expected. Saw a large fossil turtle, some twenty inches in diameter, with the plates distinct, in a slate-colored stone from western New York; also a sword in its scabbard, found in the road near Concord April 19, 1775, and supposed to have belonged to a British officer.

Cape Ann, from Beverly round to Squam, is bristling with little capes, projecting from the main one and similar to it.

Sept. 25. A smart white frost last night, which has killed the sweet potato vines and melons.

P. M. — Go a-graping up Assabet with some young ladies.

The zizania fruit is green yet, but mostly dropped or plucked. Does it fall, or do birds pluck it? The *Gentiana Andrewsii* are now in prime at Gentian Shore. Some are turned dark or reddish-purple with age. There is a very red osier-like cornel on the shore by the stone-heaps.

Edward Hoar says he found last year *Datura Stramonium* in their garden. Add it, then, to our plants.

In the evening Mr. Warren brings me a snipe and a pectoral sandpiper. This last, which is a little less than the snipe but with a longer wing, must be much like *T. solitarius*, and I may have confounded them. The shaft of the first primary is conspicuously white above. The catbird still mews occasionally, and the chewink is heard faintly.

Melvin says he has found the pigeon hawk's nest here (distinct from partridge hawk's); also that he sometimes sees the larger yellow-legs here. Goodwin also says the last.

Sept. 26. Another smart frost, making dry walking amid the stiffened grass in the morning. The purple grass (*Eragrostis pectinacea*) done. Perhaps the first smart frost finished its purple.

I observe that the seeds of the *Panicum sanguinale* and *filiforme* are perhaps half fallen, evidently affected by the late frosts, as chestnuts, etc., will be by later ones;

and now is the time, too, when flocks of sparrows begin to scour over the weedy fields, especially in the morning. Methinks they are attracted to some extent by this their harvest of panic seed. The spikes of *P. Crus-galli* also are partially bare. Evidently the small granivorous birds abound more after these seeds are ripe. The seeds of pigweed are yet apparently quite green. Maybe they are somewhat peculiar for hanging on all winter.

Sept. 27. P. M. — By boat to Fair Haven Pond.

Wind northeast. Sail most of the way. The river has gone down from its height on the 20th, and is now some eighteen inches lower, or within its banks. The front-rank polygonum is uncovered and in bloom still, but its leaves generally turned a dull red. The *P. hydropiperoides* is apparently past prime. The *P. amphibium* spikes still in prime.[1]

When close to the bushes you do not notice any mark of the recent high water, but at a little distance you see a perfectly level line on the button-bushes and willows, about eighteen inches above the present surface, it being all dark below and warm sunny yellow above. The leaves that have been immersed are generally fallen or withered. Though the bushes may be loose and open, this water-line is so perfectly level that it appears continuous.

The farmers digging potatoes on shore pause a moment to watch my sail and bending mast. It is pleasant to see your mast bend in these safe waters. It is rare that the wind is so northeast that I can sail well from the railroad bridge to Clamshell Hill, as to-day.

[1] [Two interrogation-points in pencil here.]

Red maples now fairly glow along the shore. They vary from yellow to a peculiar crimson which is more red than common crimson.[1] But these particular trees soon fade. It is the first blush which is the purest. See men raking cranberries now, or far away squatting in the meadows, where they are picking them. Grapes have begun to shrivel on their stems. They drop off on the slightest touch, and if they fall into the water are lost, going to the bottom. You see the grape leaves touched with frost curled up and looking crisp on their edges.

The fisherman Haynes thinks that the large flock of peetweet-like birds which I saw on the meadow one fall were what he calls "black-backs."

What are those little birds in flocks in the garden and on the peach trees these mornings, about size of chip-birds, without distinct chestnut crowns?[2]

Sept. 28. *Tuesday.* P. M. — To Great Fields *via* Gentian Lane.

The gentian (*Andrewsii*), now generally in prime, loves moist, shady banks, and its transcendent blue shows best in the shade and suggests coolness; contrasts there with the fresh green; — a splendid blue, light in the shade, turning to purple with age. They are particularly abundant under the north side of the willow-row in Merrick's pasture. I count fifteen in a single cluster there, and afterward twenty at Gentian Lane near Flint's Bridge, and there were other clusters below. Bluer than the bluest sky, they lurk in the moist and shady recesses of the banks.

[1] [*Excursions*, p. 261; Riv. 320.]

[2] Probably are chip-birds. *Vide* Oct. 5.

Acalypha is killed by frost, and rhexia.

Liatris done, apparently some time. When Gosnold and Pring and Champlain coasted along our shores, even then the small shrub oak grew on the mainland, with its pretty acorns striped dark and light alternately.[1]

Sept. 29. Fine weather.

P. M. — To White Pond.

One or two myrtle-birds in their fall dress, with brown head and shoulders, two whitish bars on wings, and bright-yellow rump. Sit on Clamshell, looking up the smooth stream. Two blue herons, or "herns," as Goodwin calls them, fly sluggishly up the stream. Interesting even is a stake, with its reflection, left standing in the still river by some fisherman.

Again we have smooth waters, yellow foliage, and faint warbling birds, etc., as in spring. The year thus repeats itself. Catch some of those little fuzzy gnats dancing in the air there over the shelly bank, and these are black, with black plumes, unlike those last seen over the Cassandra Pond.

Brushed a spectrum, ghost-horse, off my face in a birch wood, by the J. P. Brown cold Heart-Leaf Pond. Head somewhat like a striped snake.

That pond is drier than I ever saw it, *perhaps*,[2] — all but a couple of square rods in the middle, — and now covered with cyperus, etc. The mud is cracked into large polygonal figures of four to six sides and six to twelve inches across, with cracks a half to three quarters of an inch wide.

[1] The black oak acorns also slightly marked thus.

[2] No, have seen it so before.

See what must be a solitary tattler feeding by the water's edge, and it has tracked the mud all about. It cannot be the *Tringa pectoralis*, for it has no conspicuous white chin, nor black dashes on the throat, nor brown on the back and wings, and I think I see the round white spots on its wings. It has not the white on wing of the peetweet, yet utters the *peetweet* note! — *short* and *faint*, not protracted, and not the "sharp whistle" that Wilson speaks of.

The lespedeza leaves are all withered and ready to fall in the frosty hollows near Nut Meadow, and [in] the swamps the ground is already strewn with the first maple leaves, concealing the springiness of the soil, and many plants are prostrate there, November-like. High up in Nut Meadow, the very brook — push aside the half-withered grass which (the farmer disdaining to cut it) conceals it — is as cool as a spring, being near its sources.

Take perhaps our last bath in White Pond for the year. Half a dozen *F. hyemalis* about. Looking toward the sun, some fields reflect a light sheen from low webs of gossamer which thickly cover the stubble and grass.

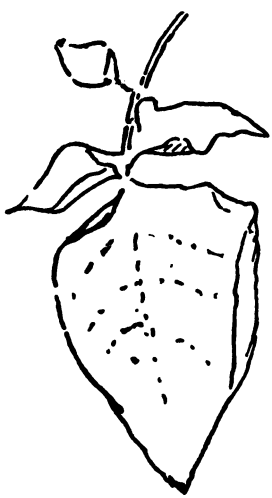
On our way, near the Hosmer moraine, let off some pasture thistle-down. One steadily rose from my hand, freighted with its seed, till it was several hundred feet high, and then passed out of sight eastward. Its down was particularly spreading or open. Is not here a hint to balloonists? Astronomers can calculate the orbit of that thistle-down called the comet, now in the northwest sky, conveying its nucleus, which may not be so solid as a thistle's seed, somewhither, but what astronomer

can calculate the orbit of my thistle-down and tell where it will deposit its precious freight at last? It may still be travelling when I am sleeping.

Some *Lobelia inflata* leaves peculiar hoary-white.

Sept. 30. A large flock of grackles amid the willows by the riverside, or chiefly concealed low in the button-bushes beneath them, though quite near me. There they keep up their spluttering notes, though somewhat less loud, methinks, than in spring. These are the first I have seen, and now for some time, I think, the red-wings have been gone. These are the first arrivers from the north where they breed.

I observe the peculiar steel-bluish purple of the night-shade, *i. e.* the tips of the twigs, while all beneath is green, dotted with bright berries, over the water. Perhaps this is the most singular color of any autumnal tint. It is almost black in some lights, distinctly steel-blue in the shade and contrasting with the green beneath, but, seen against the sun, it is a rich purple, its veins full of fire. The form of the leaf, too, is peculiar.



The pearly everlasting is an interesting white at present. Though the stem and leaves are still green, it is dry and unwithering like an artificial flower. Its white flexuous

stem and branches, too, like wire wound with cotton. Its amaranthine quality is instead of high color. Neither is there any scent to betray it. Its very brown centre now affects us as a fresh and original color. It monopolizes a small circle, in the midst of sweet-fern perchance, on a dry hillside.

I see undoubtedly the little dipper by the edge of the pads this afternoon, and I think I have not seen it before this season. It is much smaller than I have seen this season, and is hard to detect even within four or five rods. It warily dives and comes up a rod or two further off amid the pads, scarcely disturbing the surface.

The wind is northerly these afternoons, blowing pretty strong early in the afternoon, so that I can sail up the stream; but later it goes down, leaving the river glassy smooth, and only a leaping fish or an insect dimples it or makes a sparkle on it.

Some young black cherry leaves are completely changed some time to their deep cherry-red. Also they are rather dull, but beneath quite lively, like the juice of a freshly crushed cherry.

In our late walk on the Cape, we entered Gloucester each time in the dark at mid-evening, travelling partly across lots till we fell into a road, and as we were simply seeking a bed, inquiring the way of villagers whom we could not see, the town seemed far more homelike to us than when we made our way out of it in the morning. It was comparatively still, and the inhabitants were sensibly or poetically employed, too, and then we went straight to our chamber and saw the moonlight reflected

from the smooth harbor and lighting up the fishing vessels, as if it had been the harbor of Venice. By day we went remarking on the peculiar angles of the bevelled roofs, of which there is a remarkable variety there. There are also many large, square, three-story houses with short windows in the upper story, as if the third story were as good as a gig for respectability. When entering the town in the moonlight we could not always tell whether the road skirted the back yards or the front yards of the houses, and the houses did not so impertinently stare after the traveller and watch his coming as by day.

Walking early in the day and approaching the rocky shore from the north, the shadows of the cliffs were very distinct and grateful and our spirits were buoyant. Though we walked all day, it seemed the days were not long enough to get tired in. Some villages we went through or by without communicating with any inhabitant, but saw them as quietly and distantly as in a picture.

IV

OCTOBER, 1858

(ÆT. 41)

Oct. 1. P. M. — To Hubbard's Close. Clintonia Maple Swamp is very fair now, especially a quarter of a mile off, where you get the effect of the light colors without detecting the imperfections of the leaves. Look now at such a swamp, of maples mixed with the evergreen pines, at the base of a pine-clad hill, and see their yellow and scarlet and crimson fires of all tints, mingled and contrasted with the green. Some maples are yet green, only yellow-tipped on the edges of their flakes, as the edges of a hazelnut bur. Some are wholly brilliant scarlet, raying out regularly and finely every way. Others, of more regular form, seem to rest heavily, flake on flake, like yellow or scarlet snow-drifts.[1]

The cinnamon ferns are crisp and sour [?] in open grounds.

The fringed gentians are now in prime. These are closed in the afternoon,[2] but I saw them open at 12 M. a day or two ago, and they were exceedingly beautiful, especially when there was a single one on a stem. They who see them closed, or in the afternoon only, do not suspect their beauty.

Viola lanceolata again.

[1] [*Excursions*, pp. 261, 262; Riv. 320, 321.]

[2] No. *Vidè* forward.

See larks in small flocks.

Was overtaken by a sudden gust and rain from the west. It broke off some limbs and brought down many leaves. Took refuge in Minott's house at last. He told me his last duck-shooting exploit for the fifth or sixth time. Says that Jake Potter, who died over eighty some dozen years since, told him that when he was a boy and used to drive his father Ephraim's cows to pasture in the meadows near Fair Haven, after they were mown in the fall, returning with them at evening, he used to hear the wildcats yell in the Fair Haven woods.

Minott tells of a great rise of the river once in August, when a great many "marsh-birds," as peeps, killdees, yellow-legs, etc., came inland, and he saw a flock of them reaching from Flint's Bridge a mile down-stream over the meadows, and making a great noise. Says the "killdees" used to be common here, and the yellow-legs, called "humilities," used commonly to breed here on the tussocks in the meadows. He has often found their nests.

Let a full-grown but young cock stand near you. How full of life he is, from the tip of his bill through his trembling wattles and comb and his bright eye to the extremity of his clean toes! How alert and restless, listening to every sound and watching every motion! How various his notes, from the finest and shrillest alarum as a hawk sails over, surpassing the most accomplished violinist on the short strings, to a hoarse and terrene voice or cluck! He has a word for every occasion; for the dog that rushes past, and partlet cackling in the barn. And then now, elevating himself and flapping his wings, he gathers

impetus and air and launches forth that world-renowned ear-piercing strain! not a vulgar note of defiance, but the mere effervescence of life, like the bursting of a bubble in a wine-cup. Is any gem so bright as his eye?

The elms are now great brownish-yellow masses hanging over the street. Their leaves are perfectly ripe. I wonder if there is any answering ripeness in the lives of those who live beneath them.[1] The harvest of elm leaves is come, or at hand.

The cat sleeps on her head! What does this portend? It is more alarming than a dozen comets. How long prejudice survives! The big-bodied fisherman asks me doubtingly about the comet seen these nights in the northwest, — if there is any danger to be apprehended from that side! I would fain suggest that only he is dangerous to himself.

Oct. 2. A dark and windy night the last. It is a new value when darkness amounts to something positive. Each morning now, after rain and wind, is fresher and cooler, and leaves still green reflect a brighter sheen.

Minott told me yesterday that he had never seen the seashore but once, and that was Noddle's Island in the War of 1812.

The garden is alive with migrating sparrows these mornings. The cat comes in from an early walk amid the weeds. She is full of sparrows and wants no more breakfast this morning, unless it be a saucer of milk, the dear creature. I saw her studying ornithology between the corn-rows.[2]

[1] [*Excursions*, p. 263; Riv. 322.]

[2] [Channing, p. 298.]

As I approached Perch Pool the other day, half a dozen frogs leaped into it and buried themselves in the mass of callitriche at the bottom. I stood looking for perch a minute or two, when one after another up came the frogs from out the callitriche, just as a piece of cork would rise by mere buoyancy to the surface; and then, by a distinct effort, they let go all, drop anchor, elevate or let float up their heels, and lie spread out on the surface. They were probably *Rana fontinalis*.

Sailed to Baker Farm with a strong northwest wind. Got a peck of the small long-bunched grapes now turned purple under Lee's Cliff. One or two vines bear very plentifully. The bunches are about six inches long by one and a half, and quite dense and cylindrical commonly. They are now apparently just in their prime, to judge from color. Considerably later than the *Vitis Labrusca*, but are not good.[1] A large chocolate-colored puffball "smokes."

Oct. 3. One brings me this morning a Carolina rail alive, this year's bird evidently from its marks. He saved it from a cat in the road near the Battle-Ground. On being taken up, it pecked a little at first, but was soon quiet. It staggers about as if weak on my window-sill and pecks at the glass, or stands with its eyes shut, half asleep, and its back feathers hunched up. Possibly it is wounded. I suspect it may have been hatched here. Its feet are large and spreading, qualifying it to run on mud or pads. Its crown is black, but chin white, and its back feathers are distinctly edged with white in streaks.

[1] Mother [made] a nice jelly of them afterward.

I compare my hazelnuts gathered some time ago. The beaked are pointed nuts, while the common are blunt; and the former are a much

paler brown, also have a yellower and much sweeter meat.

A fringed gentian, plucked day before yesterday, at length, this forenoon, untwists and turns its petals partially, in my chamber.

Have noticed a very brilliant scarlet blackberry patch within a week.

The red maples which changed first, along the river, are now faded and partly fallen. They look more pink. But others are lit, and so there is more color than before. Some particular maple among a hundred will be of a peculiarly bright and pure scarlet, and, by its difference of tint and intenser color, attract our eyes even at a distance in the midst of the crowd.[1] Looking all around Fair Haven Pond yesterday, where the maples were glowing amid the evergreens, my eyes invariably rested on a particular small maple of the purest and intensest scarlet.

P. M. — Paddle about Walden.

As I go through the Cut, I discover a new locality for the crotalaria, being attracted by the pretty blue-black pods, now ripe and dangling in profusion from these low plants, on the bare sandy and gravelly slope of the Cut. The vines or plants are but half a dozen times longer (or higher) than the pods. It was the contrast of these black pods with the yellowish sand which betrayed them.

[1] [*Excursions*, p. 261; Riv. 320.]

How many men have a fatal excess of manner! There was one came to our house the other evening, and behaved very simply and well till the moment he was passing out the door. He then suddenly put on the airs of a well-bred man, and consciously described some arc of beauty or other with his head or hand. It was but a slight flourish, but it has put me on the alert.

It is interesting to consider how that crotalaria spreads itself, sure to find out the suitable soil. One year I find it on the Great Fields and think it rare; the next I find it in a new and unexpected place. It flits about like a flock of sparrows, from field to field.

The maples about Walden are quite handsome now. Standing on the railroad, I look across the pond to Pine Hill, where the outside trees and the shrubs scattered generally through the wood glow through the green, yellow, and scarlet, like fires just kindled at the base of the trees, — a general conflagration just fairly under way, soon to envelop every tree. The hillside forest is all aglow along its edge and in all its cracks and fissures, and soon the flames will leap upward to the tops of the tallest trees. About the pond I see maples of all their tints, and black birches (on the southwest side) clear pale yellow; and on the peak young chestnut clumps and walnuts are considerably yellowed.

I hear, out toward the middle, or a dozen rods from me, the plashing made apparently by the shiners, — for they look and shine like them, — leaping in schools on the surface. Many lift themselves quite out for a foot or two, but most rise only part way out, — twenty black points at once. There are several schools indulging in

this sport from time to time as they swim slowly along. This I ascertain by paddling out to them. Perhaps they leap and dance in the water just as gnats dance in the air at present. I have seen it before in the fall. Is it peculiar to this season?

Hear a hylodes peeping on shore.

A general reddening now of young and scrub oaks. Some chinquapin bright-red. White pines fairly begin to change. The large leaves of some black oak sprouts are dark-purple, almost blackish, above, but greenish beneath. See locust leaves all crisped by frost in Laurel Glen Hollow, but only part way up the bank, as on the shore of a lake.

Oct. 4. Going by Dr. Barrett's, just at the edge of evening, I saw on the sidewalk something bright like fire, as if molten lead were scattered along, and then I wondered if a drunkard's spittle were luminous, and proceeded to poke it on to a leaf with a stick. It was rotten wood. I found that it came from the bottom of some old fence-posts which had just been dug up near by and there glowed for a foot or two, being quite rotten and soft, and it suggested that a lamp-post might be more luminous at bottom than at top. I cut out a handful and carried it about. It was quite soft and spongy and a very pale brown — some almost white — in the light, quite soft and flaky; and as I withdrew it gradually from the light, it began to glow with a distinctly blue fire in its recesses, becoming more universal and whiter as the darkness increased. Carried toward a candle, it is quite a blue light. One man whom I met in the street was able

to tell the time by his watch, holding it over what was in my hand. The posts were oak, probably white. Mr. Melvin, the mason, told me that he heard his dog barking the other night, and, going out, found that it was at the bottom of an old post he had dug up during the day, which was all aglow.

P. M. (before the above). — Paddled up the Assabet. Strong north wind, bringing down leaves.

Many white and red maple, bass, elm, and black willow leaves are strewn over the surface of the water, light, crisp colored skiffs. The bass is in the prime of its change, a mass of yellow.

See B—— a-fishing notwithstanding the wind. A man runs down, fails, loses self-respect, and goes a-fishing, though he were never seen on the river before. Yet methinks his "misfortune" is good for him, and he is the more mellow and humane. Perhaps he begins to perceive more clearly that the object of life is something else than acquiring property, and he really stands in a truer relation to his fellow-men than when he commanded a false respect of them. There he stands at length, perchance better employed than ever, holding communion with nature and himself and coming to understand his real position and relation to men in this world. It is better than a poor debtors' prison, better than most successful money-getting.

I see some rich-weed in the shade of the Hemlocks, for some time a clear, almost ivory, white, and the boehmeria is also whitish. *Rhus Toxicodendron* in the shade is a pure yellow; in the sun, more scarlet or reddish.

Grape leaves apparently as yellow as ever. Witch-hazel apparently at height of change, yellow below, green above, the yellow leaves by their color concealing the flowers. The flowers, too, are apparently in prime. The leaves are often richly spotted reddish and greenish brown. The white maples that changed first are about bare. The brownish-yellow clethra leaves thickly paint the bank. *Salix lucida* leaves are one third clear yellow. The *Osmunda regalis* is yellowed and partly crisp and withered, but a little later than the cinnamon, etc.

Scare up two ducks, which go off with a sharp creaking *ar-r-week, ar-r-week, ar-r-week.* Is not this the note of the wood duck?

Hornets are still at work in their nests.

Ascend the hill. The cranberry meadows are a dull red. See crickets eating the election-cake toadstools. The Great Meadows, where not mown, have long been brown with wool-grass.

The hickories on the northwest side of this hill are in the prime of their color, of a rich orange; some intimately mixed with green, handsomer than those that are wholly changed. The outmost parts and edges of the foliage are orange, the recesses green, as if the outmost parts, being turned toward the sunny fire, were first baked by it.

Oct. 5. I still see large flocks, apparently of chip-birds, on the weeds and ground in the yard; without very distinct chestnut crowns, and they are divided by a light line. They are eating seeds of the *Amaranthus hybridus*, etc.

8 A. M. — I go to Hubbard's Close to see when the

fringed gentians open. They begin to open *in the sun* about 8.30 A. M., or say 9.

Chewink note still. Grackles in flocks. *Phebe* note of chickadee often these days.

Much green is indispensable for maples, hickories, birches, etc., to contrast with, as of pines, oaks, alders, etc. The former are fairest when seen against these. The maples, being in their prime, say yesterday, before the pines, are conspicuously parti-colored.

P. M. — To Easterbrooks Country.

White pines in low ground and swamps are the first to change. Some of these have lost many needles. Some on dry ground have so far changed as to be quite handsome, but most only so far as to make the misty glaucous (green) leaves more soft and indefinite. The fever-bush is in the height of its change and is a showy clear lemon-yellow, contrasting with its scarlet berries. The yellow birch is apparently at the height of its change, clear yellow like the black. I think I saw a white ash which was all turned clear yellowish, and no mulberry, in the Botrychium Swamp.

Looking on the Great Meadows from beyond Nathan Barrett's, the wool-grass, where uncut, is very rich brown, contrasting with the clear green of the portions which are mown; all rectangular.

The staghorn sumach apparently in the prime [1] of its change.

In the evening I am glad to find that my phosphorescent wood of last night still glows somewhat, but I im-

[1] [Queried in pencil.]

prove it much by putting it in water. The little chips which remain in the water or sink to the bottom are like so many stars in the sky.

The comet makes a great show these nights. Its tail is at least as long as the whole of the Great Dipper, to whose handle, till within a night or two, it reached, in a great curve, and we plainly see stars through it.[1]

Huckleberry bushes generally red, but dull Indian-red, not scarlet.

The red maples are generally past their prime (of color). They are duller or faded. Their first fires, like those of genius, are brightest. In some places on the edges of swamps many of their tops are bare and smoky. The dicksonia fern is for the most part quite crisp and brown along the walls.

Oct. 6. P. M. — To Saw Mill Brook and Flint's Pond.

Now, methinks, the autumnal tints are brightest in our streets and in the woods generally. In the streets, the *young* sugar maples make the most show. The street is never more splendid. As I look up the street from the Mill-Dam, they look like painted screens standing before the houses to celebrate a gala-day.[2] One half of each tree glows with a delicate scarlet. But only one of the large maples on the Common is yet on fire. The butternuts on the street are with, or a little later than, the walnuts. The three-thorned acacias have turned (one half) a pe-

[1] It finally reaches between one fourth and one third from the horizon to the zenith.

[2] [*Excursions*, p. 271; Riv. 332.]

culiarly clear bright and delicate yellow, peculiar also for the smallness of the leaf. Asparagus-beds are a soft mass of yellow and green. Buttonwoods have no bright colors, but are a brownish and yellowish green, somewhat curled and crisp and looking the worse for the wear. Stand where half a dozen large elms droop over a house. It is as if you stood within a ripe pumpkin rind, and you feel as mellow as if you were the pulp.[1]

In Saw Mill Brook Path, and in most wood-paths, the *Aster undulatus* is now very fair and interesting. Generally a tall and slender plant with a very long panicle of middle-sized lilac or paler purple flowers, bent over to one side the path. The *Rhus Toxicodendron* leaves are completely changed and of very various colors, pale yellow to deep scarlet and delicate. The leaf-stalks are commonly drooping, being bent short downward near the base in a peculiar manner. Several species of ferns are faded quite white in the swamp, — dicksonia and another, and some brakes, — for in moist woods and swamps they are preserved longer than in dry places. *Solidago latifolia* in bloom still, but always sparingly. Cinnamon ferns are generally crisped, but in the swamp I saw some handsomely spotted green and yellowish, and one clump, the handsomest I ever saw, perfect in outline, falling over each way from the centre, of a very neat drab color, quaker-like, fit to adorn an Oriental drawing-room. The evergreens seem positively greener, owing to the browning of other leaves. I should not suspect that the white birches had changed so much and

[1] [*Excursions*, pp. 263; Riv. 323.]

lost so many leaves, if I did not see them against the unchanged pitch pines on the hillside. I notice *Hieracium paniculatum* and *scabrum* in dark, low wood-paths, turned a hoary white. The medeola leaves are a pale straw-color with a crimson centre; perhaps getting stale now. The tupelo at Wharf Rock is completely scarlet, with blue berries amid its leaves.

Leaves now have fairly begun to rustle under foot in wood-paths, especially in chestnut woods, scaring the ducks as you approach the ponds. And what is that common scent there so much like fragrant everlasting?

The smooth sumachs, which are in their prime, or perhaps a little past, are, methinks, the most uniform and intense scarlet of any shrub or tree. They stand perfectly distinct amid the pines, with slender spreading arms, their leafets drooping and somewhat curled though fresh. Yet, high-colored as they are, from their attitude and drooping, like scarfs, on rather bare and dark stems, they have a funereal effect, as if you were walking in the cemetery of a people who mourned in scarlet.

Most *S. nemoralis*, and most other goldenrods, now look hoary, killed by frost.

The corn stands bleached and faded — quite white in the twilight — in the fields. No greenness there has the frost and sun left. Seen against the dark earth.

My phosphorescent wood still glows a little, though it has lain on my stove all day, and, being wet, it is much improved still.

Oct. 8. Fine pasture grass, seen in the sun, begins to look faded and bleached like the corn.

Strong northwest wind. The button-bushes and black willows are rapidly losing leaves, and the shore begins to look Novemberish.

Mulberry leaves of ash are apparently dulled.

Oct. 9. Cold and northwest wind still. The maple swamps begin to look smoky, they are already so bare. Their fires, so faded, are pale-scarlet or pinkish. Some *Cornus sericea* looks quite greenish yet. Huckleberry leaves falling fast.

I go to the Cliffs. The air is clear, with a cold northwest wind, and the trees beginning to be bare. The mountains are darker and distincter, and Walden, seen from this hill, darker blue. It is quite Novemberish. People are making haste to gather the remaining apples this cool evening.[1] Bay-wings flit along road.

Crows fly over and caw at you now.

Methinks hawks are more commonly seen now, — the slender marsh hawk for one. I see four or five in different places. I watch two marsh hawks which rise from the woods before me as I sit on the Cliff, at first plunging at each other, gradually lifting themselves as they come round in their gyrations, higher and higher, and floating toward the southeast. Slender dark motes they are at last, almost lost to sight, but every time they come round eastward I see the light of the westering sun reflected from the under sides of their wings.

Those little bits of phosphorescent wood which I picked up on the 4th have glowed each evening since, but required wetting to get the most light out of them.

[1] And for some time after.

This evening only one, about two inches long, shows any light. This was wet last evening, but is now apparently quite dry. If I should wet it again, it would, no doubt, glow again considerably.

Oct. 10. *Sunday.* P. M. — To Annursnack.

November has already come to the river with the fall of the black willow and the button-bush, and the fall and blackening of the pontederia. The leaves of the two former are the greater part fallen, letting in the autumn light to the water, and the ducks have less shelter and concealment.

As I go along the Groton road, I see afar, in the middle of E. Wood's field, what looks like a stone jug or post, but my glass reveals it a woodchuck, a great, plump gray fellow, and when I am nearly half a mile off, I can still see him nibbling the grass there, and from time to time, when he hears, perchance, a wagon on the road, sitting erect and looking warily around for approaching foes. I am glad to see the woodchuck so fat in the orchard. It proves that is the same nature that was of yore.

The autumnal brightness of the foliage generally is less, or faded, since the fading of the maples and hickories, which began about the 5th.[1] Oak leaves generally (perhaps except scarlet ?) begin to wither soon after they begin to turn, and large trees (except the scarlet) do not generally attain to brilliancy.[2]

Apparently *Fringilla pusilla* yet.

[1] But the oaks became brighter. *Vide* 15th.

[2] [Queried in pencil.]

The *Salix humilis* leaves are falling fast in Wood Turtle Path (A. Hosmer's), a dry wood-path, looking curled and slaty-colored about the half-bare stems. Thus each humble shrub is contributing its mite to the fertility of the globe. I find the under sides of the election-cake fungi there covered with pink-colored fleas, apparently poduras, skipping about when it is turned up to the light.

The simplest and most lumpish fungus has a peculiar interest to us, compared with a mere mass of earth, because it is so obviously organic and related to ourselves, however mute. It is the expression of an idea; growth according to a law; matter not dormant, not raw, but inspired, appropriated by spirit. If I take up a handful of earth, however separately interesting the particles may be, their relation to one another appears to be that of mere juxtaposition generally. I might have thrown them together thus. But the humblest fungus betrays a life akin to my own. It is a successful poem in its kind. There is suggested something superior to any particle of matter, in the idea or mind which uses and arranges the particles.

Genius is inspired by its own works; it is hermaphroditic.

I find the fringed gentian abundantly open at 3 and at 4 P. M., — in fact, it must be all the afternoon, — open to catch the cool October sun and air in its low position. Such a dark blue! surpassing that of the male bluebird's back, who must be encouraged by its presence.[1]

[1] Inclosing it in a mass of the sphagnum near or in which it often grows, I carry it home, and it opens for several days in succession.

The indigo-weed, now partly turned black and broken off, blows about the pastures like the flyaway grass.

I find some of those little rooty tubers (?), now woody, in the turtle field of A. Hosmer's by Eddy Bridge.

Pulling up some *Diplopappus linariifolius*, now done, I find many *bright-purple* shoots, a half to three quarters of an inch long, freshly put forth underground and ready to turn upward and form new plants in the spring.

Oct. 11. P. M. — To Conantum.

The autumnal tints have not been so bright as usual this year,[1] but why it is hard to say. The summer has been peculiarly cool, as well as wet, and it may be that the leaves have been the more inclined to decay before coming to maturity. Also, apparently, many leaves are killed by the mere frosts before ripening, the locust for instance, — and the frost came early this year, — just as melons and squashes before they have turned yellow; *i. e.*, the leaves fall while they are still green.

I observe the small cornel or bunch-berry conspicuously green now, like wintergreen and evergreen in the woods, amid the changed or withered foliage of the forest floor. Yet I have seen it purple (?) in the winter, methinks.

See a small flock of cowbirds (?), with at any rate conspicuously *drab* head and shoulders, — the rest black. What were those slender sparrow-like birds which went off singly from the sides of Conantum hills, with a sharp *chit chit*, a peculiar note, flying *somewhat* like a goldfinch but not quite so ricochet? They are quite shy.

[1] ?? Perhaps they were later (?).

Witch-hazel, grape, smooth sumach, and common hazel are partly fallen, — some of the first-named wholly, — yet full of bloom. It is a cool seat under the witch-hazel in full bloom, which has lost its leaves! The leaves are greenish and brownish yellow. White pines are apparently ready to fall. Some are much paler brown than others. The small botrychium has shed pollen apparently within ten days. The *Viburnum Lentago* is generally a dull red on a green ground, but its leaves are yet quite fresh.

See a white-throat sparrow? [1]

Oct. 12. P. M. — Up Assabet.

Most exposed button-bushes and black willows are two thirds bare, and the leaves which remain on the former are for the most part brown and shrivelled. The balls stand out bare, ruddy or brown. The coarse grass of the riverside (*Phalaris?*) is bleached as white as corn. The *Cornus sericea* begins to fall, though some of it is green; and the *C. florida* at Island shows some scarlet tints, but it is not much exposed. I believe that this was quite showy at Perth Amboy.

There are many maple, birch, etc., leaves on the Assabet, in stiller places along the shore, but not yet a leaf harvest. Many swamp white oaks look crisp and brown.

I land at Pinxter Swamp. The leaves of the azaleas are falling, mostly fallen, and revealing the large blossom-buds, so prepared are they for another year. With man all is uncertainty. He does not confidently look forward to another spring. But examine the root of the

[1] Yes.

savory-leaved aster, and you will find the new shoots, fair purple shoots, which are to curve upward and bear the next year's flowers, already grown half an inch or more in earth. Nature is confident.

The river is lower than before this year, or at least since spring, yet not remarkably low, and meadows and pools generally are drier.

The oak leaves generally are duller than usual this year.[1] I think it must be that they are killed by frost before they are ripe. Some small sugar maples are still as fair as ever. You will often see one, large or small, a brilliant and almost uniform scarlet, while another close to it will be perfectly green.

The *Osmunda regalis* and some of the small or middle-sized ferns, not evergreens, in and about the swamps, are generally brown and withered, though with green ones intermixed. They are still, however, interesting, with their pale brown or cinnamon-color and decaying scent. Hickories are for the most part being rapidly browned and crisp. Of the oaks, the white is apparently the most generally red at present. I see a scarlet oak still quite green.

Brakes are fallen in the pastures. They lie flat, still attached to the ground by their stems, and in sandy places they blow about these and describe distinct and perfect circles there. The now fallen dark-brown brake lies on or across the old brake, which fell last year and is quite gray but remarkably conspicuous still. They have fallen in their ranks, as they stood, and lie as it were with a winding-sheet about them.

[1] *Vide* 15th.

Young sweet-fern, where it had been burned in the spring, is quite green. Exposed clethra is crisp and brown. Some bass trees are quite bare, others but partly. The hop hornbeam is in color and falling like the elm. Acorns, red and white (especially the first), appear to be fallen or falling. They are so fair and plump and glossy that I love to handle them, and am loath to throw away what I have in my hand.

I see a squirrel-nest of leaves, made now before the leaves are fallen.

I have heard of judges, accidentally met at an evening party, discussing the efficacy of the laws and courts, and deciding that, with the aid of the jury system, "substantial justice was done." But taking those cases in which honest men refrain from going to law, together with those in which men, honest and dishonest, do go to law, I think that the law is really a "humbug," and a benefit principally to the lawyers. This town has made a law recently against cattle going at large, and assigned a penalty of five dollars. I am troubled by an Irish neighbor's cow and horse, and have threatened to have them put in the pound. But a lawyer tells me that these town laws are hard to put through, there are so many quibbles. He never knew the complainant to get his case if the defendant were a-mind to contend. However, the cattle were kept out several days, till a Sunday came, and then they were all in my grounds again, as I heard, but all my neighbors tell me that I cannot have them impounded on that day. Indeed, I observe that very many of my neighbors do *for this reason* regularly turn their cattle loose on Sundays. The judges may discuss the question

of the courts and law over their nuts and raisins, and mumble forth the decision that "substantial justice is done," but I must believe they mean that they do really get paid a "substantial" salary.

Oct. 13. Rain, all day, more or less, which the cloudy and rather still yesterday threatened. Elm leaves thickly strew the street now and rattle underfoot, — the dark-brown pavement. The elms are at least half bare.

Oct. 14. P. M. — Sail to Ball's Hill.

The white maples are now apparently in their autumnal dress. The leaves are much curled and of a pale hoary or silvery yellow, with often a rosaceous cheek, though not so high-colored as two months ago. They are beginning to lose their leaves. Though they still hold on, they have lost much of their vitality.

On the top of Ball's Hill, nearly half-way its length, the red pine-sap, quite fresh, apparently not long in bloom, the flower recurved. As last year, I suspect that this variety is later than the yellowish one, of which I have seen none for a long time. The last, in E. Hubbard's wood, is all brown and withered. This is a clear and distinct deep-red from the ground upward, all but the edges and tips of the petals, and is very handsome amid the withered lower leaves, as it were the latest flower of the year. The roots have not only a sweet earthy, but decidedly checkerberry, scent. At length this fungus-like plant bursts red-ripe, stem and all, from the ground. Its deep redness reminds me of the deeper colors of the western sky after the sun has set, — a sort

of afterglow in the flowery year. I suspect that it is eminently an autumnal flower.

The tufts of *Andropogon scoparius*, which is common on the sandy shore under Ball's Hill and yet more on the hill just behind Reuben Brown's place, are now in their autumnal state, — recurved [?] culms adorned with white fuzzy spikes. The culms still are of a dull-red color, quite agreeable in the sun.

Paddling slowly back, we enjoy at length very perfect reflections in the still water. The blue of the sky, and indeed all tints, are deepened in the reflection.

Oct. 15. The balm-of-Gileads are half bare. I see a few red maples still bright, but they are commonly yellow ones.[1] White pines are in the midst of their fall. The Lombardy poplars are still quite green and cool. Large rock maples are now perhaps in their prime, — later than I supposed, — though some small ones have begun to fall. Some that were green a week ago are now changed. The large white oak by path north of Sleepy Hollow is now all red and at height. Perhaps half the white ash trees are yellow, and if the mulberry ones were dulled (?) a week ago, the yellow ones, methinks, are fresher or brighter than ever, but fast falling. White birches, though they have lost many leaves, are still, perhaps, as soft a yellow as ever, a fine yellow imbrication seen against the greener forest. They change gradually and last long.

P. M. — To Walden.

White oaks are rapidly withering, — the outer leaves.

[1] No. [2] Rather the 18th, *q. v.*

The small black oaks, too, are beginning to wither and turn brown. *Small* red oaks, at least, and small scarlet ones, are apparently in their prime in sprout-lands and young woods. The large leaves of the red oaks are still fresh, of mingled reddish or scarlet, yellow, and green, striking for the size of the leaf, but not so uniformly dark and brilliant as the scarlet. The black oak is yellowish, a half-decayed or brownish yellow, and already becoming brown and crisp, though not so much so as the white. The scarlet is the most brilliant of the oaks, finely fingered, especially noticeable in sprout-lands and young woods. The larger ones are still altogether green, or show a deep cool green in their recesses.

If you stand fronting a hillside covered with a variety of young oaks, the brightest scarlet ones, uniformly deep, dark scarlet, will be the scarlet oaks; the next most uniformly reddish, a peculiar dull crimson (or salmon ?) red, are the white oaks; then the large-leaved and variously tinted red oaks, scarlet, yellow, and green; and finally the yellowish and half-decayed brown leaves of the black oak.

The colors of the oaks are far more distinct now than they were before. See that white and that black oak, side by side, young trees, the first that peculiar dull crimson (or salmon) red, with crisped edges, the second a brownish and greenish yellow, much sun still in its leaves. Looking at a young white oak, you see two distinct colors, the brighter or glossier red of the upper surfaces of the inner leaves, as yet not much affected by frost and wind, contrasting with the paler but still crimson-

tinged under sides of the outmost leaves, blown up by the wind and perhaps partly crisped.[1]

I notice thorn bushes in sprout-lands quite bare. The lower leaves of huckleberry bushes and young wild black cherries fall first, but for the most part the upper leaves of apple trees. The high blueberries are still a bright or red scarlet. Goldenrods now pretty generally show their dirty-white pappus together with the still yellow scales, the last preserving some semblance of the flowers. Small hickories are the clearest and most delicate yellow in the shade of the woods. Cinnamon ferns in Clintonia Swamp are fast losing their leafets. Some large dicksonias on the moist hillside there are quite green yet, though nearly prostrate in a large close patch slanting down the hill, and with some faded nearly white.

The yellow lily in the brook by the Turnpike is still expanding fresh leaves with wrinkled edges, as in the spring.

The *Salix humilis* falls, exposing its great cones like a fruit.

On the sandy slope of the cut, close by the pond, I notice the chips which some Indian fletcher has made. Yet our poets and philosophers regret that we have no antiquities in America, no ruins to remind us of the past. Hardly can the wind blow away the surface anywhere, exposing the spotless sand, even though the thickest woods have recently stood there, but these little stone chips made by some aboriginal fletcher are revealed. With them, too, this time, as often, I find the white man's arm, a conical bullet, still marked by the groove

[1] For shrub oak color *vide* Oct. 2d, 1857.

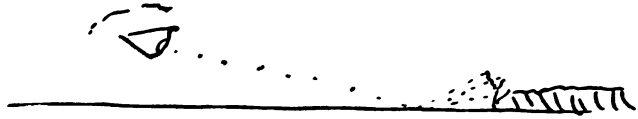
of the rifle, which has been roughened or rucked up like a thimble on the side by which it struck the sand. As if, by some [un]explained sympathy and attraction, the Indian's and the white man's arrowheads sought the same grave at last.

Oct. 16. P. M. — Sail up river.

There is less wind these days than a week or fortnight ago; calmer and more Indian-summer-like days. I now fairly begin to see the brown balls of the button-bush (which is about bare) reflected in smooth water, looking black against the sky, also the now withered straw-colored coarse grass (*Phalaris*); and the musquash-houses rapidly rising of late are revealed by the fall of the button-bush, willows, pontederia, etc.

In the reflection the button-bushes and their balls appear against the sky, though the substance is seen against the meadow or distant woods and hills; *i. e.*, they appear in the reflection as they would if viewed from that point on the surface from which they are reflected to my eye, so that it is as if I had another eye placed there to see for me. Hence, too, we are struck by the prevalence of sky or light in the reflection, and at twilight dream that the light has gone down into the bosom of the waters; for in the reflection the sky comes up to the very shore or edge and appears to extend under it, while, the substance being seen from a more elevated point, the actual horizon is perhaps many miles distant over the fields and hills. In the reflection you have an infinite number of eyes to see for you and report the aspect of things each from its point of view. The statue

in the meadow which actually is seen obscurely against the meadow, in the reflection appears dark and distinct against the sky.



The mikania, goldenrods, and *Andropogon scoparius* have now their November aspect, the former showing their dirty-white pappus, the last its white plumose hairs. The year is thus acquiring a grizzly look before the snows of winter. I see some *Polygonum amphibium*, front-rank, and *hydropiperoides* still.

At Clamshell the large black oaks are brownish and greenish yellow; the swamp white, at a distance, a yellowish green; though many of the last (which are small) are already withered pale-brown with light under sides.

Willows generally turn yellow, even to the little sage willow, the smallest of all our species, but a foot or two high, though the *Salix alba* hardly attains to more than a sheeny polish.[1] But one willow, at least, the *S. cordata*, varies from yellow to a light scarlet in wet places, which would be deeper yet were it not for its lighter under sides. This is seen afar in considerable low patches in the meadow. It is remarkable among our willows for turning scarlet, and I can distinguish this species now by this, *i. e.* part of it, in perhaps the wettest places; the rest is yellow. It is as distinctly scarlet as the gooseberry, though it may be lighter.

[1] *Vide* 18th.

The oak sprout-land on the hillside north of Puffer's is now quite brilliant red. There is a pretty dense row of white birches along the base of the hill near the meadow, and their light-yellow spires are seen against the red and set it off remarkably, the red being also seen a little below them, between their bare stems. The green white pines seen here and there amid the red are equally important.

The tupelo by Staples's meadow is completely bare. Some high blueberry is a deep dark crimson. In sprout-lands you see great mellow yellowish leaves of aspen sprouts here and there.

See a large flock of grackles steering for a bare elm-top near the meadows. As they fly athwart my view, they appear successively rising half a foot or a foot above one another, though the flock is moving straight forward. I have not seen red-wings [for] a long while, but these birds, which went so much further north to breed, are still arriving from those distant regions, fetching the year about.

Oct. 17. P. M. — Up Assabet.

There are many crisped but colored leaves resting on the smooth surface of the Assabet, which for the most part is not stirred by a breath; but in some places, where the middle is rippled by a slight breeze, no leaves are seen, while the broad and perfectly smooth portions next the shore will be covered with them, as if by a current they were prevented from falling on the other parts. These leaves are chiefly of the red maple, with some white maple, etc. To be sure, they hardly begin to con-

ceal the river, unless in some quiet coves, yet they remind me of ditches in swamps, whose surfaces are often quite concealed by leaves now. The waves made by my boat cause them to rustle, and both by sounds and sights I am reminded that I am in the very midst of the fall.

Methinks the reflections are never purer and more distinct than now at the season of the fall of the leaf, just before the cool twilight has come, when the air has a finer grain. Just as our mental reflections are more distinct at this season of the year, when the evenings grow cool and lengthen and our winter evenings with their brighter fires may be said to begin. And painted ducks, too, often come and sail or float amid the painted leaves.

Cattle are seen these days turned into the river meadows and straying far and wide. They have at length reached those "pastures new" they dreamed of.

I see one or two large white maples quite bare. Some late red maples are unexpectedly as fair and bright as ever, both scarlet and yellow, and still distance all competitors. There is no brighter and purer scarlet (often running into crimson) and no softer and clearer yellow than theirs now, though the greater part have quite lost their leaves. The fires I thought dulled, if not put out, a week ago seem to have burst forth again. This accounts for those red maples which were seen to be green while all around them were scarlet. They but bided their time. They were not so easily affected.

I distinguish one large red oak — the most advanced one — from black ones, by its *red* brown, though some

[1] [*Excursions*, p. 268; Riv. 328.]

October Reflections

others are yellow-brown and greenish. The *large* red oaks are about in their prime. Some are a handsome light scarlet, with yellow and green.[1]

The *Cornus sericea* is a very dark crimson, though it has lost some leaves. The *Salix lucida* lower leaves are all fallen (the rest are yellow). So, too, it is the lower leaves of the willows generally which have fallen first.

Saw a small hawk come flying over the Assabet, which at first I mistook for a dove, though it was smaller. It was blunt or round-shouldered like a dove. It alighted on a small elm and did not mind a wagon passing near by. Seen through my glass twenty rods off, it had a very distinct black head, with apparently a yellowish-brown breast and beneath and a brown back, — both, however, quite light, — and a yellowish tail with a distinct broad black band at the tip. This I saw when, in pruning itself, it was tilted or flirted up. Could it have been a sparrow hawk?

One reason why I associate perfect reflections from still water with this and a later season may be that now, by the fall of the leaves, so much more light is let in to the water. The river reflects more light, therefore, in this twilight of the year, as it were an afterglow.

Oct. 18. P. M. — To Smith's chestnut grove and Saw Mill Brook.

The large sugar maples on the Common are now at the height of their beauty. One, the earliest to change, is partly bare. This turned so early and so deep a scarlet that some thought that it was surely going to die.

[1] *Vide* 28th.

Also that one at the head of the Turnpike reveals its character now as far as you can see it. Yet about ten days ago all but one of these was quite green, and I thought they would not acquire any bright tints. A delicate but warmer than golden yellow is the prevailing color, with scarlet cheeks.[1] They are great regular oval masses of yellow and scarlet. All the sunny warmth of the season seems to be absorbed in their leaves. There is an auction on the Common, but its red flag is hard to be discerned amid this blaze of color. The lowest and inmost leaves next the bole are of the most delicate yellow and green, as usual, like the complexion of young men brought up in the house.

Little did the fathers of the town anticipate this brilliant success when they caused to be imported from further in the country some straight poles with the tops cut off, which they called sugar maple trees, — and a neighboring merchant's clerk, as I remember, by way of jest planted beans about them. Yet these which were then jestingly called bean-poles are these days far the most beautiful objects noticeable in our streets. They are worth all and more than they have cost, — though one of the selectmen did take the cold which occasioned his death in setting them out, — if only because they have filled the open eyes of children with their rich color so unstintedly so many autumns. We will not ask them to yield us sugar in the spring, while they yield us so fair a prospect in the autumn. Wealth may be the inheritance of few in the houses, but it is equally distributed on the Common. All children alike can

[1] *Vide* [pp. 226, 227].

revel in this golden harvest. These trees, throughout the street, are at least equal to an annual festival and holiday, or a week of such, — not requiring any special police to keep the peace, — and poor indeed must be that New England village's October which has not the maple in its streets. This October festival costs no powder nor ringing of bells, but every tree is a liberty-pole on which a thousand bright flags are run up. Hundreds of children's eyes are steadily drinking in this color, and by these teachers even the truants are caught and educated the moment they step abroad. It is as if some cheap and innocent gala-day were celebrated in our town every autumn, — a week or two of such days.

What meant the fathers by establishing this *living* institution before the church, — this institution which needs no repairing nor repainting, which is continually "enlarged and repaired" by its growth? Surely trees should be set in our streets with a view to their October splendor. Do you not think it will make some odds to these children that they were brought up under the maples? Indeed, neither the truant nor the studious are at present taught colors in the schools. These are instead of the bright colors in apothecary shops and city windows. It is a pity we have not more red maples and some hickories in the streets as well. Our paint-box is very imperfectly filled. Instead of, or besides, supplying paint-boxes, I would supply these natural colors to the young.[1]

I know of one man at least, called an excellent and peculiarly successful farmer, who has thoroughly re-

[1] [*Excursions*, pp. 271–274, 277; Riv. 333–337, 340.]

paired his house and built a new barn with a barn cellar, such as every farmer seems fated to have, who has not a single tree or shrub of any kind about his house or within a considerable distance of it.

No annual training or muster of soldiery, no celebration with its scarfs and banners, could import into the town a hundredth part of the annual splendor of our October. We have only to set the trees, or let them stand, and Nature will find the colored drapery, — flags of all her nations, some of whose private signals hardly the botanist can read. Let us have a good many maples and hickories and scarlet oaks, then, I say. Blaze away! Shall that dirty roll of bunting in the gun-house be all the colors a village can display? A village is not complete unless it has these trees to mark the season in it. They are as important as a town clock. Such a village will not be found to work well. It has a screw loose; an essential part is wanting. Let us have willows for spring, elms for summer, maples and walnuts and tupelos for autumn, evergreens for winter, and oaks for all seasons. What is a gallery in a house to a gallery in the streets! I think that there is not a picture-gallery in the country which would be worth so much to us as is the western view under the elms of our main street. They are the frame to a picture, and we are not in the dilemma of the Irishman who, having bought a costly gilt picture-frame at an auction, found himself obliged to buy a picture at private sale to put into it, for our picture is already painted with each sunset behind it. An avenue of elms as large as our largest, and three miles long, would seem to lead to some admirable place,

though only Concord were at the end of it. Such a street as I have described would be to the traveller, especially in October, an ever-changing panorama.

A village needs these innocent stimulants of bright and cheery prospects to keep off melancholy and superstition. Show me two villages, one embowered in trees and blazing with all the glories of October, the other a merely trivial and treeless waste, and I shall be sure that in the latter will be found the most desperate and hardest drinkers. What if we were to take half as much pains in protecting them as we do in setting them out, — not stupidly tie our horses to our dahlia stems? They are cheap preachers, permanently settled, which preach their half-century, and century, aye, and century and a half sermons, with continually increasing influence and unction, ministering to many generations of men, and the least we can do is to supply them with suitable colleagues as they grow infirm.[1]

Children are now everywhere playing with the brown and withered leaves of elms and buttonwoods, which strew the streets and are collected into heaps in the sluiceways. In the woods even the little pea-vine turns a delicate yellow and is more conspicuous than ever, and in the now neglected gardens the asparagus-beds, greenish without, glow yellow within, as if a fire were bursting out there.

As I go down the Turnpike past Clintonia Swamp, I am struck by the magical change which has taken place in the red maple swamps, which just a fortnight ago were splendid masses of scarlet and yellow and crimson,

[1] [*Excursions*, pp. 275–278; Riv. 338–341.]

rising amid the yet green trees, — pines and oaks, etc., — like immense flower-beds on one side of the town, visible for miles, attracting the eyes of all travellers; now, — though a few late ones are bright as ever in some places, — all their splendor gone, wafted away, as it were, by a puff of wind, and they are the mere ghosts of trees, unnoticed by any, or, if noticed at all, like the smoke that is seen where a blaze is extinguished, or as the red clouds at evening change suddenly to gray and black,— so suddenly their glory departs, — desolate gray twigs.

The *Salix alba* is a light and silvery green. Since the red maples generally fell, the chestnuts have been yellowing, and the oaks reddening and yellowing. The chestnuts are now in their prime, though many leaves are fallen. The forest, which showed but little ripeness ten days ago, except about its edges and here and there as you looked down on it from a height, is now seen to be generally of a mellow brownish yellow, like perfectly ripe fruit, which we know to be more perfectly ripe for being a little specked. By the brook, witch-hazel, as an underwood, is in the height of its change, but elsewhere exposed large bushes are bare. *Rhus Toxicodendron* is fallen. The hornbeam is a greenish yellow, or yellow as it were dusted with green. The maple-leaved viburnum, now at its height, varies, with more or less of shade, from dark crimson through a delicate pale crimson to whitish. The sage willow, a light yellow, in prime, though hardly noticed amid the more conspicuous oaks. Larches have begun to change in water.

As I come through Hubbard's Woods I see the winter-

green, conspicuous now above the freshly fallen white pine needles. Their shining green is suddenly revealed above the pale-brown ground. I hail its cool unwithering green, one of the humbler allies by whose aid we are to face the winter.

Saw, October 14th, a snake at Ball's Hill, like a striped snake, but apparently yellow-spotted above and with a flatter head? Noticed a little snake, eight or nine inches long, in the rut in the road in the Lincoln woods. It was brown above with a paler-brown dorsal stripe, which was bounded on each side by a row of dark-brown or blackish dots one eighth inch apart, the opposite rows alternating thus: beneath, light cream-color or yellowish white. Evidently Storer's *Coluber ordinatus*. It ran along in the deep sandy rut and would probably be run over there.

See larks, with their white tail-feathers, fluttering low over the meadows these days.

Minott was sitting outside, as usual, and inquired if I saw any game in my walks these days; since, now that he cannot go abroad himself, he likes to hear from the woods. He tried to detain me to listen to some of his hunting-stories, especially about a slut that belonged to a neighbor by the name of Billings, which was excellent for squirrels, rabbits, and partridges, and would always follow him when he went out, though Billings was "plaguy mad about it;" however, he had only to go by Billings's to have the dog accompany him. B. afterward carried her up country and gave her away, the news of which almost broke Minott's heart. He said he

could have cried when he heard of it, for he had dreamed of her several nights. She was a plaguy good dog for squirrels, etc., but her pups were none of them equal to herself. It was not time for squirrels now, because the leaves were not off enough. He used sometimes to take his old king's-arm on these excursions. It was heavy, but it was sure. His present gun has a flint lock and has often been repaired, and he said he did n't suppose it would fetch more than a dollar if put up at auction now. But he would n't take twenty dollars for it. He did n't want to part with it. He liked to look at it.

As leaves fall along the river and in the woods, the squirrels and musquash make haste to shelter and conceal themselves by constructing nests and cabins.

Oct. 19. A remarkably warm day. I have not been more troubled by the heat this year, being a *little* more thickly clad than in summer. I walk in the middle of the street for air. The thermometer says 74° at 1 P. M. This must be Indian summer.

P. M. — Ride to Sam Barrett's mill.

Am pleased again to see the cobweb drapery of the mill. Each fine line hanging in festoons from the timbers overhead and on the sides, and on the discarded machinery lying about, is covered and greatly enlarged by a coating of meal, by which its curve is revealed, like the twigs under their ridges of snow in winter. It is like the tassels and tapestry of counterpane and dimity in a lady's bedchamber, and I pray that the cobwebs may not have been brushed away from the mills which I visit. It is as if I were aboard a man-of-war, and this

were the fine "rigging" of the mill, the sails being taken in. All things in the mill wear the same livery or drapery, down to the miller's hat and coat. I knew Barrett forty rods off in the cranberry meadow by the meal on his hat.

Barrett's apprentice, it seems, makes trays of black birch and of red maple, in a dark room under the mill. I was pleased to see this work done here, a wooden tray is so handsome. You could count the circles of growth on the end of the tray, and the dark heart of the tree was seen at each end above, producing a semicircular ornament. It was a satisfaction to be reminded that we may so easily make our own trenchers as well as fill them. To see the tree reappear on the table, instead of going to the fire or some equally coarse use, is some compensation for having it cut down. The wooden tray is still in demand to chop meat in, at least. If taken from the bench to the kitchen, they are pretty sure to crack, being made green. They should be placed to season for three months on the beams in a barn, said the miller.

Hosmer says that the rill between him and Simon Brown generally runs all night and in the fore part of the day, but then dries up, or stops, and runs again at night, or it will run all day in cloudy weather. This is perhaps because there is less evaporation then. It would be interesting to study the phenomena of this rill, so slight that it does not commonly run all day at this season, nor quite run across the road. In the scale of rivers it is at the opposite extreme to the Mississippi, which overflows so widely and makes "crevasses," and yet it interests out of proportion to its size, and I have

no doubt that I might learn some of the laws of the Mississippi more easily by attending to it.

Standing on Hunt's Bridge at 5 o'clock, the sun just ready to set, I notice that its light on my note-book is quite rosy or purple, though the sun itself and its halo are merely yellow, and there is no purple in the western sky. Perhaps I might have detected a purple tinge already in the eastern sky, had I looked, and I was exactly at that distance this side the sunset where the foremost of the rosy waves of light roll in the wake of the sun, and the white page was the most suitable surface to reflect it.[1]

The lit river, purling and eddying onward, was spotted with recently fallen leaves, some of which were being carried round by eddies. Leaves are now falling all the country over: some in the swamps, concealing the water; some in woods and on hillsides, where perhaps Vulcan may find them in the spring; some by the wayside, gathered into heaps, where children are playing with them; and some are being conveyed silently seaward on rivers; concealing the water in swamps, where at length they flat out and sink to the bottom, and we never hear of them again, unless we shall see their impressions on the coal of a future geological period. Some add them to their manure-heaps; others consume them with fire. The trees repay the earth with interest for what they have taken from it. The trees are discounting.[2]

Standing on the east of the maples on the Common

[1] *Vide* Sept. 24, 1851.

[2] [*Excursions*, pp. 268, 269; Riv. 329.]

I see that their yellow, compared with the pale lemon-yellow of the elms close by, amounts to a scarlet, without noticing the bright-scarlet cheeks.[1]

Some *Chenopodium album* are purple-stemmed now, like poke long ago; some handsomely striped, purple and green.

There is no handsomer shingling and paint than the woodbine at present, covering a whole side of some houses, *viz.* the house near the almshouse and the brick house.[2]

I was the more pleased with the sight of the trays because the tools used were so simple, and they were made by hand, not by machinery. They may make equally good pails, and cheaper as well as faster, at the pail-factory with the home-made ones, but that interests me less, because the man is turned partly into a machine there himself. In this case, the workman's relation to his work is more poetic, he also shows more dexterity and is more of a man. You come away from the great factory saddened, as if the chief end of man were to make pails; but, in the case of the countryman who makes a few by hand, rainy days, the relative importance of human life and of pails is preserved, and you come away thinking of the simple and helpful life of the man, — you do not turn pale at the thought, — and would fain go to making pails yourself. We admire more the man who can use an axe or adze skillfully than him who can merely tend a machine. When labor is reduced to turning a crank it is no longer amusing nor truly profit-

[1] [*Excursions*, p. 271; Riv. 333.]

[2] [*Excursions*, p. 276; Riv. 338.]

able; but let this business become very profitable in a pecuniary sense, and so be "driven," as the phrase is, and carried on on a large scale, and the man is sunk in it, while only the pail or tray floats; we are interested in it only in the same way as the proprietor or company is.

Walked along the dam and the broad bank of the canal with Hosmer. He thought this bank proved that there were strong men here a hundred years ago or more, and that probably they used wooden shovels edged with iron, and perchance home-made, to make that bank with, for he remembered and had used them. Thus rapidly we skip back to the implements of the savage. Some call them "shod shovels."

Oct. 20. Indian summer this and the 19th. I hear of apple trees in bloom again in Waltham or Cambridge.

P. M. — To White Pond.

Another remarkably warm and pleasant day, if not too hot for walking; 74° at 2 P. M. Thought I would like to see the glassy gleaming surface of White Pond. I think that this is the acme of the fall generally,[1] — not quite of sugar maples perhaps, — and it is this remarkable heat which this time, more than anything, methinks, has caused the leaves to fall.[2] It has suddenly perfectly ripened and wilted them, and now, with a puff of wind, they come showering down on land and water, making a sound like rain. They are thickly strewn under their respective trees in the Corner road, and wagons roll over

[1] Or say the 21st.

[2] There has been no frost for some days.

them as a shadow. Rain and frost and unusual heat, succeeded by wind, all have to do with the fall of the leaf. No doubt the leaves suddenly ripen to their fall in intense heat, such as this, just as peaches, etc., over softened and ripened, fall.[1] As I go through Hubbard's fields, I see that the cows have got into the shade of trees as in July. The black birch in this grove is in the midst of its fall, perfectly yellow.[2] But these delicately tinted leaves will wilt and fade even in your hat on your way home. Their colors are very fugacious. They must be seen on the tree or under it. You cannot easily carry this splendor home.

The tupelos appear to fall early. I have not seen one with leaves since the 16th.

It is so warm that even the tipulidæ appear to prefer the shade. There they continue their dance, balancing to partners, as it seems, and by a fine hum remind me of summer still, when now the air generally is rather empty of insect sounds. Also I see yellow butterflies chasing one another, taking no thought for the morrow, but confiding in the sunny day as if it were to be perpetual. There is a haze between me and the nearest woods, as thick as the thickest in summer. My black clothes are white with the gossamer they have caught in coming through the fields, for it streams from every stubble, though it is not remarkably abundant. Flocks of this gossamer, like tangled skeins, float gently through

[1] [*Excursions*, pp. 265, 266; Riv. 325, 326.]

[2] 22d, 1855. As I pass this grove, I see the open ground strewn and colored with the yellow leaves which have been wafted from a large black birch.

the quiet air as high as my head, like white parachutes to unseen balloons.

From the higher ground west of the stump-fence field. The stagnant river gleams like liquid gossamer in the sun, and I can hardly distinguish the sparkle occasioned by an insect from the white breast of a duck. Methinks the jay, panting with heat, is silenced for a time.

Green leaves are doubtless handsome in their season, but now that we behold these ripe ones, we are inclined to think that the former are handsome somewhat as green fruits are, as green apples and melons. It would give our eyes the dysentery to look only on green leaves always. At this season each leaf becomes a laboratory in which the fairest and brightest colors are compounded.

There is one advantage in walking eastward these afternoons, at least, that in returning you may have the western sky before you.

Hickories, and some oaks even, are now overdone. They remind me of a loaf of brown bread perfectly baked in the oven, in whose cracks I see the yellowish inside contrasting with the brown crust. Some small red maples still stand yellow within the woods.

As I look over the smooth gleaming surface of White Pond, I am attracted by the sun-sparkles on it, as if fiery serpents were crossing to and fro. Yet if you were there you would find only insignificant insects.

As I come up from the pond, I am grateful for the fresh easterly breeze at last thickening the haze on that side and driving it in on us, for Nature must preserve her equilibrium. However, it is not much cooler.

As I approached the pond, I saw a hind in a potato-

field (digging potatoes), who stood stock-still for ten minutes to gaze at me in mute astonishment, till I had sunk into the woods amid the hills about the pond, and when I emerged again, there he was, motionless still, on the same spot, with his eye on me, resting on his idle hoe, as one might watch at the mouth of a fox's hole to see him come out. Perchance he may have thought *nihil humanum*, etc., or else he was transfixed with thought, — which is worth a bushel or two of potatoes, whatever his employer may say, — contrasting his condition with my own, and though he stood so still, civilization made some progress. But I must hasten away or he 'll lose his day. I was as indifferent to his eyeshot as a tree walking, for I am used to such things. Perchance he will relate his adventure when he gets home at night, and what he has seen, though he did not have to light a candle this time. I am in a fair way to become a valuable citizen to him, as he is to me. He raises potatoes in the field for me; I raise curiosity in him. He stirs the earth; I stir him. What a power am I! I cause the potatoes to rot in the ground. I affect distant markets surely. But he shall not spoil my day; I will get in my harvest nevertheless. This will be nuts to him when the winter evenings come; he will tell his dream then. Talk of reaping-machines! I did not go into that field at all. I did not meddle with the potatoes. He was the only crop I gathered at a glance. Perchance he thought, "I harvest potatoes; he harvests me!"

W. W. introduced me to his brother in the road. The latter was not only a better-dressed but a higher-cultured man than the other, yet looking remarkably like him, —

his brother! In all cases we esteem rather the suggested ideal than the actual man, and it is remarkable that so many men have an actual brother, an improved edition of themselves, to whom we are introduced at last. Is he his brother, or his other self? I expect to be introduced to the ideal Mr. W. one of these days and then cut the acquaintance of the actual one.

It is remarkable that yellow and bright scarlet in the autumnal tints are generally interchangeable. I see it now even in the case of the scarlet oak, for here is a yellow one. Shade turns scarlet to yellow. So you would say that scarlet was intense yellow, more cooked, nearer the sun, like Mars. Red maple is either scarlet or yellow,[1] *Rhus Toxicodendron*, etc., etc. So with black scrub oaks, etc., etc.[2] Many plants which in the summer show a few red or scarlet leaves at length are all yellow only, as horehound now.[3] Others begin with yellow and end with a brilliant scarlet.[4]

The large crickets now swarm in dry paths, each at the mouth of its burrow, as I notice when crossing to Martial Miles's.

The broad hairy leaves or blades of the *Panicum clandestinum* are turned to a very dark purple in cultivated potato-fields.

A white-throated sparrow.

[1] *Vide* 15th, 1857.

[2] As meadow-sweet, tupelo even, high blueberry in shade, the 31st, red oak; and the russet leaves, as barberry, apple, etc.

[3] *Diplopappus linariifolius* in shade yellow, in sun purple, last of October.

[4] *Vide* 24th. Some blue-stemmed goldenrod yellow, some purple, Nov. 10th.

On Money-Diggers' Hill-side, the *Andropogon scoparius* now stands in tufts two feet high by one wide, with little whitish plumes along the upper half of its reddish fawn-colored (?) culms. Now in low grounds the different species of bidens or beggar's-ticks adhere to your clothes. These bidents, tridents, quadridents are shot into you by myriads of unnoticed foes.

Oct. 21. Cooler to-day, yet pleasant.

6 A. M. — Up Assabet.

Most leaves now on the water. They fell yesterday, — white and red maple, swamp white oak, white birch, black and red oak, hemlock (which has begun to fall), hop-hornbeam, etc., etc. They cover the water thickly, concealing all along the south side for half a rod to a rod in width, and at the rocks, where they are met and stopped by the easterly breeze, form a broad and dense crescent quite across the river.

On the hilltop, the sun having just risen, I see on my note-book that same rosy or purple light, when contrasted with the shade of another leaf, which I saw on the evening of the 19th, though perhaps I can detect a *little* purple in the eastern horizon.

The *Populus grandidentata* is quite yellow and leafy yet,[1] — the most showy tree thereabouts.

P. M. — Up Assabet, for a new mast, the old being broken in passing under a bridge.

Talked with the lame Haynes, the fisherman. He feels sure that they were not "suckers" which I saw rise to

[1] *Vide* 16th, 1857.

the shad-flies, but chivin, and that suckers do not rise to a fly nor leap out. He has seen a great many little lamprey eels come down the rivers, about as long as his finger, attached to shad. But never knew the old to come down. Thinks they die attached to roots. Has seen them half dead thus. Says the spawn is quite at the bottom of the heap. Like Witherell, he wonders how the eels increase, since he could never find any spawn in them.

The large sugar maples on the Common are in the midst of their fall to-day.

Oct. 22. P. M. — To Cliffs and Walden.

A thickly overcast yet thick and hazy day.

I see a Lombardy poplar or two yellowing at last; many leaves clear and handsome yellow. They thus, like the balm-of-Gilead and aspens, show their relation to the willows. Horse-chestnuts are yellow and apparently in prime. I see locusts are generally yellow but thinly leaved, and those at extremities.

Going by Farrar's field bought of John Reynolds, I examined those singular barren spots produced by putting on too much meadow mud of a certain quality. In some places the sod was entirely gone; there was no grass and only a small sandy desert with the yellowish *Fimbristylis capillaris* and sorrel on it. In most places this sand was quite thickly covered with sarothra, now withered and making a dark show at a distance, and sorrel, which had not risen from the surface. These are both sour-juiced plants. It was surprising how completely the grass had been killed.

I see the small narrow leaves of the *Aster dumosus* and also the yet finer ones of the *Diplopappus linariifolius* in wood-paths, turned a clear light-yellow. The sagittate leaves of the *Viola ovata*, too, now flat in the path, and the prettily divided leaves or fingers of the *V. pedata*, with purple petioles (also fallen flatter than usual?), are both turned a clear handsome light-yellow. Also the *V. cucullata* is turned yellow. These are far more conspicuous now than ever before, contrasted with the green grass; so that you do not recognize them at first on account of their very conspicuousness or brightness of color.

Many other small plants have changed now, whose color we do not notice in the midst of the general changing. Even the *Lycopodium complanatum* (evergreen) is turned a light yellow (a part of it) in its season, like the pines (or evergreen trees).

I go up the hill from the spring. Oaks (except the scarlet), especially the small oaks, are generally withered or withering, yet most would not suspect it at a little distance, they have so much color yet. Yet, this year at least, they must have been withered more by heat than frost, for we have had very hot weather and little if any frost since the oaks generally changed. Many of the small scarlet ones are withered too, but the larger scarlet appear to be in their prime now. Some large white, black, and red are still pretty fresh.

It is very agreeable to observe now from an eminence the different tints of red and brown in an oak sprout-land or young woodland, the brownish predominating. The chocolate is one. Some will tell you that they prefer these more sober colors which the landscape wears

at present to the bright ones it exhibited a few days ago, as some prefer the sweet brown crust to the yellow inside. It is interesting to observe how gradually but steadily the woods advance through deeper and deeper shades of brown to their fall. You can tell the young white oak in the midst of the sprout-land by its light-brown color, almost like that of the russet fields seen beyond, also the scarlet by its brighter red,[1] but the pines are now the brightest of them all.

Apple orchards throughout the village, or on lower and rich ground, are quite green, but on this drier Fair Haven Hill all the apple trees are yellow, with a sprinkling of green and occasionally a tinge of scarlet, *i. e.* are russet.

I can see the red of young oaks as far as the horizon on some sides.

I think that the yellows, as birches, etc., are the most distinct this very thick and cloudy day in which there is no sun, but when the sun shines the reds are lit up more and glow.

The oaks stand browned and crisped (amid the pines), their bright colors for the most part burnt out, like a loaf that is baked, and suggest an equal wholesomeness. The whole tree is now not only ripe but, as it were, a fruit perfectly cooked by the sun. That same sun which called forth its leaves in the spring has now, aided by the frost, sealed up their fountains for the year and withered them. The order has gone forth for them to rest. As each tree casts its leaves it stands careless and free, like a horse freed from his harness, or like one who

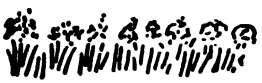
[1] *Vide* 25th.

has done his year's work and now stands unnoticed, but with concentrated strength and contentment, ready to brave the blasts of winter without a murmur.

You get very near wood ducks with a boat nowadays.

I see, from the Cliffs, that color has run through the shrub oak plain like a fire or a wave, not omitting a single tree, though I had not expected it, — large oaks do not turn so completely, — and now is for the most part burnt out for want of fuel, *i. e.* excepting the scarlet ones. The brown and chocolate colors prevail there. That birch swamp under the Cliff is very interesting. The birches are now but thinly clad and that at top, its flame-shaped top more like flames than ever now. At this distance their bare slender stems are very distinct, dense, and parallel, apparently on a somewhat smoky ground (caused by the bare twigs), and this pretty thicket of dense parallel stems is crowned or surmounted by little cones or crescents of golden spangles.

Hear a cuckoo and grackles.

The birches have been steadily changing and falling for a long, long time. The lowermost leaves turn golden and fall first; so their autumn change is like a fire which has steadily burned up higher and higher, consuming the fuel below, till now it has nearly reached their tops. These are quite distinct from the reddish misty maze below, if they are young trees (*vide*  sketch), or the fine and close parallel white stems if they are larger. Nevertheless the topmost leaves at the extremities of the leaves [*sic*] are still *green.*[1]

[1] *Vide* Nov. 3d.

I am surprised to find on the top of the Cliff, near the dead white pine, some small staghorn sumachs. (Mother says she found them on the hill behind Charles Davis's!) These are now at the height (?) of their change,[1] as is ours in the yard, turned an *orange* scarlet, not so dark as the smooth, which is now apparently fallen.[2] But ours, being in a shady and cool place, is probably later than the average, for I see that one at Flood's cottage has fallen. I *guess* that they may have been at height generally some ten days ago.

Near by, the *Aralia hispida*, turned a very clear dark red.

I see Heavy Haynes fishing in his old gray boat, sinking the stern deep. It is remarkable that, of the four fishermen who most frequent this river, — Melvin, Goodwin, and the two Hayneses, — the last three have all been fishermen of the sea, have visited the Grand Banks, and are well acquainted with Cape Cod. These fishermen who sit thus alone from morning till night must be greater philosophers than the shoemakers.

You can still pluck a variegated and handsome nosegay on the top of the Cliff. I see a mullein freshly out, very handsome *Aster undulatus*, and an abundance of the little blue snapdragon, and some *Polygonum Persicaria*, etc., etc.

The black shrub oak on the hillside below the bearberry fast falling and some quite bare. Some chinquapin there not fallen. Notice a chestnut quite bare. The leaves of the hickory are a very rich yellow, though they

[1] *Vide* the 5th, and the 15th, 1857.

[2] It is generally, but I see some (one or two) the 24th.

may be quite withered and fallen, but they become brown. Looking to Conantum, the huckleberries are apparently fallen.

The fields are now perhaps truly and most generally russet, especially where the blackberry and other small reddish plants are seen through the fine bleached grass and stubble, — like a golden russet apple. This occurs to me, going along the side of the Well Meadow Field.

Apparently the scarlet oak, large and small (not shrubby), is in prime now, after other oaks are generally withered or withering. The clumps of *Salix tristis*, half yellow, spotted with dark-brown or blackish and half withered and turned dark ash-colored, are rather interesting. The *S. humilis* has similar dark spots.

Hornets' nests are now being exposed, deserted by the hornets; and little wasp (?) nests, one and a half inches wide, on huckleberry (?) and sweet-fern (?). White pines have for the most part fallen. All the underwood is hung with their brown fallen needles, giving to the woods an untidy appearance.

C. tells of hearing after dark the other night frequent raucous notes which were new to him, on the ammannia meadow, in the grass. Were they not meadow-hens? Rice says he saw one within a week. Have they not lingered to feed in our meadows the late warm and pleasant nights?

The haze is still very thick, though it is comparatively cool weather, and if there were no moon to-night, I think it would be very dark. Do not the darkest nights occur about this time, when there is a haze produced by the Indian-summer days, succeeded by a moonless night?

These bright leaves are not the exception but the rule, for I believe that *all* leaves, even grasses, etc., etc., — *Panicum clandestinum*, — and mosses, as sphagnum, under favorable circumstances acquire brighter colors just before their fall. When you come to observe faithfully the changes of each humblest plant, you find, it may be unexpectedly, that each has sooner or later its peculiar autumnal tint or tints, though it may be rare and unobserved, as many a plant is at all seasons. And if you undertake to make a complete list of the bright tints, your list will be as long as a catalogue of the plants in your vicinity.[1]

Think how much the eyes of painters, both artisans and artists, and of the manufacturers of cloth and paper, and the paper-stainers, etc., are to be educated by these autumnal colors. The stationer's envelopes may be of very various tints, yet not so various as those of the leaves of a single tree sometimes. If you want a different shade or tint of a particular color, you have only to look further within or without the tree, or the wood.[2] The eye might thus be taught to distinguish color and appreciate a difference of tint or shade.

Oct. 23. P. M. — To Ledum Swamp.

One tells me that he saw geese go over Wayland the 17th.

Large wild cherries are half fallen or more, the few remaining leaves yellowish. Choke-cherries are bare; how long? Amelanchier bare. *Viburnum nudum* half

[1] [*Excursions*, pp. 288, 289; Riv. 354, 355.]

[2] [*Excursions*, p. 273; Riv. 335.]

fallen or more; when wet and in shade, a light crimson. Hardhack, in low ground, where it has not withered too soon, inclines to a very light scarlet. Sweet-gale is not fallen, but a *very dull* yellowish and scarlet. You see in woods many black (?) oak sprouts, forming low bushes or clumps of green and dark crimson. (C. says they are handsome, like a mahonia.) The meadow-sweet is yellowish and yellow-scarlet. In Ledum Swamp the white azalea is a *dirty brown scarlet*, half fallen, or more. Panicled andromeda reddish-brown and half fallen. Some young high blueberry, or sprouts, never are a deeper or brighter crimson-scarlet than now. Wild holly fallen. Even the sphagnum has turned brownish-red on the exposed surfaces, in the swamp, looking like the at length blushing pellicle of the ripe globe there. The ledum is in (the midst of?) its change, rather conspicuous, yellow and light-scarlet and falling. I detect but few *Andromeda Polifolia* and *Kalmia glauca* leaves turned a light red or scarlet. The spruce is changed and falling, but is brown and inconspicuous.

A man at work on the Ledum Pool, draining it, says that, when they had ditched about six feet deep, or to the bottom, near the edge of this swamp, they came to old flags, and he thought that the whole swamp was once a pond and the flags grew by the edge of it. Thought the mud was twenty feet deep near the pool, and that he had found three growths of spruce, one above another, there. He had dug up a hard-pan with iron in it (as he thought) under a part of this swamp, and in what he cast out sorrel came up and grew, very rankly indeed.

I notice some late rue turned a very clear light yellow. I see some rose leaves (the early smooth) turned a handsome clear yellow, — and some (the *R. Carolina*) equally clear and handsome scarlet or dark red. This is the rule with it. Elder is a dirty greenish yellow and apparently mostly fallen. Beach plum is still green with some dull-red leaves, but apparently hardly any fallen. Butternuts are bare. Mountain-ash of both kinds either withered or bare.

Oct. 24. A northeast storm, though not much rain falls to-day, but a fine driving mizzle or "drisk." This, as usual, brings the geese, and at 2.30 P. M. I see two flocks go over. I hear that some were seen two or three weeks ago (? ?), faintly honking. A great many must go over to-day and also alight in this neighborhood. This weather warns them of the approach of winter, and this wind speeds them on their way. Surely, then, while geese fly overhead we can live here as contentedly as they do at York Factory on Hudson's Bay. We shall perchance be as well provisioned and have as good society as they. Let us be of good cheer, then, and expect the annual vessel which brings the spring to us without fail.[1]

P. M. — To Woodis Park over Hill.

The celtis has just fallen. Its leaves were apparently a yellow green. The sassafras trees are bare, — how long? — and the white ash apparently just bared. The locusts are bare except the tops, and in this respect those on the hills, at least, are as peculiar as birches. Some trees

[1] [Channing, p. 106.]

lose their lower leaves first, as birches and locusts; some the upper, as apples (though a few green leaves may remain on the very tips of the twigs) and generally maples, though the last fall fast. Hickories are two thirds fallen, at least.[1]

This rain and wind too bring down the leaves very fast. The yard is strewn with the yellow leaves of the peach and the orange and scarlet ones of the cherry. You could not spread a cloth but it would soon be strewn with them.

Thorns and balm-of-Gilead and red mulberries bare.

The brilliant autumnal colors are red and yellow and the various tints, hues, and shades of these. Blue is reserved to be the color of the sky, but yellow and red are the colors of the earth flower. Every fruit, on ripening, and just before its fall, acquires a bright tint. So do the leaves; so the sky before the end of the day, and the year near its setting. October is the red sunset sky, November the later twilight. Color stands for all ripeness and success. We have dreamed that the hero should carry his color aloft, as a symbol of the ripeness of his virtue. The noblest feature, the eye, is the fairest-colored, the jewel of the body. The warrior's flag is the flower which precedes his fruit. He unfurls his flag to the breeze with such confidence and brag as the flower its petals. Now we shall see what kind of fruit will succeed.

The very forest and herbage, the pellicle of the earth as it were, must acquire a bright color, an evidence of

[1] Apparently mocker-nut later.

its ripeness, as if the globe itself were a fruit on its stem, with ever one cheek toward the sun.

Our appetites have commonly confined our views of ripeness and its phenomena — color and mellowness and perfectness — to the fruits which we eat, and we are wont to forget that an immense harvest which we do not eat, hardly use at all, is annually ripened by nature. At our annual cattle-shows and horticultural exhibitions we make, as we think, a great show of fair fruits, destined, however, to a rather ignoble fate, fruits not worshipped for this chiefly; but round about and within our towns there is annually another show of fruits, on an infinitely grander scale, fruits which address our taste for beauty alone.

The scarlet oak, which was quite green the 12th, is now completely scarlet and apparently has been so a few days. This alone of our indigenous deciduous trees (the pitch pine is with it) is now in its glory. (I have not seen the beech, but suppose it past.[1] The *Populus grandidentata* [2] and sugar maple come nearest to it, but they have lost the greater part of their leaves.) Look at one, completely changed from green to bright dark-scarlet, every leaf, as if it had been dipped into a scarlet dye, between you and the sun. Was not this worth waiting for? Little did you think ten days ago that that cold green tree could assume such color as this. Its leaves still firmly attached while those of other trees are falling around it. I am the last to blush, but I blush deeper than any of ye. I bring up the rear in my red coat. The

[1] It is. *Vide* 25th.

[2] *Vide* 16th, 1857. And *P. tremuloides* (*vide* Nov. 2d).

scarlet oaks, alone of oaks, have not given up the fight. Perchance their leaves, so finely cut, are longer preserved partly because they present less surface to the elements, and for a long time, if I remember rightly, some scarlet oak leaves will "hold out to burn."

Now in huckleberry pastures you see only here and there a few bright scarlet or crimson (for they vary) leaves amid or above the bare reddish stems, burning as if with condensed brightness, — as if the few that remained burned with the condensed brightness of all that have fallen. In sheltered woods you [see] some dicksonia still straw-color or pale-yellow. Some thoroughwort the same color. In the shade generally you find paler and more delicate tints, fading to straw-color and white. The deep reds and scarlets and purples show exposure to the sun. I see an intensely scarlet high blueberry — but where one leaf has overlapped another it is yellow — with a regular outline.

That large hornets' nest which I saw on the 4th is now deserted, and I bring it home. But in the evening, warmed by my fire, two or three come forth and crawl over it, and I make haste to throw it out the window.

Oct. 25. P. M. — To the Beeches.

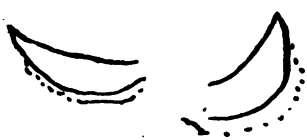
I look at the willows by the causeway, east side, as I go, — *Salix discolor*, *Torreyana*, *rostrata*, and *lucida* are all almost quite bare, and the remaining leaves are yellow or yellowish. Those of the last the clearest and most conspicuous yellow. *S. pedicellaris* is merely yellowish, being rather green and not fallen. The *S. alba* at a distance looks very silvery in the light.

Now that the leaves are fallen (for a few days), the long yellow buds (often red-pointed) which sleep along the twigs of the *S. discolor* are very conspicuous and quite interesting, already even carrying our thoughts forward to spring. I noticed them first on the 22d. They may be put with the azalea buds already noticed. Even bleak and barren November wears these *gems* [1] on her breast in sign of the coming year. How many thoughts lie undeveloped, and as it were dormant, like these buds, in the minds of men!

This is the coolest day thus far, reminding me that I have only a half-thick coat on. The easterly wind comes cold into my ear, as yet unused to it. Yet this first decided coolness — not to say wintriness — is not only bracing but exhilarating and concentrating [to] our forces. So much the more I have a hearth and heart *within* me. We step more briskly, and brace ourselves against the winter.

I see some alders about bare. Aspens (*tremuliformis*) generally bare.

Near the end of the causeway, milkweed is copiously discounting. This is much fairer than the thistle-down. It apparently bursts its pods after rain especially (as yesterday's), opening on the under side, away from succeeding rains. Half a dozen seeds or more, attached by the tips of their silks to the core of the pod, will be blown about there a long time before a strong puff launches



[1] [Thoreau underscored this word doubtless to emphasize its etymology, — from the Latin *gemma*, a bud.]

them away, and in the meanwhile they are expanding and drying their silk.

In the cut the *F. hyemalis*, which has been here for a month, flits away with its sharp twitter amid the falling leaves. This is a fall sound.

At the pond the black birches are bare; how long?

Now, as you walk in woods, the leaves rustle under your feet as much as ever. In some places you walk pushing a mass before you. In others they half cover pools that are three rods long. They make it slippery climbing hills.

Now, too, for the different shades of brown, especially in sprout-lands. I see [three] kinds of oaks now, — the whitish brown of the white oak, the yellowish brown of the black oak, and the red or purplish brown [of the scarlet oak][1] (if it can be called brown at all, for it is not faded to brown yet and looks full of life though really withered (*i. e.* the shrubs) for the most part, excepting here and there leading shoots or spring twigs, which glow as bright a scarlet as ever). There is no red here, but perhaps that may be called a lighter, yellowish brown,[2] and so distinguished from the black in color. It has more life in it now than the white and black, not withered so much. These browns are very pure and wholesome colors, far from spot and decay, and their rustling leaves call the roll for a winter campaign. How different now the rustling of these sere leaves from the soft, fluttering murmur of the same when alive! This

[1] [A loose sheet of Thoreau's manuscript, apparently of one of his lectures, in reproducing this passage supplies these missing words.]

[2] *Vide* Oct. 31st.

sharp rustle warns all to go home now who are not prepared for a winter campaign.[1]

The scarlet oak shrubs are as distinct amid the other species as before they had withered, and it is remarkable how evenly they are distributed over the hills, by some law not quite understood. Nature ever plots against Baker and Stow, Moore and Hosmer.

The black scrub oak, seen side by side with the *white*, is yet lighter than that.

How should we do without this variety of oak leaves, — the forms and colors? On many sides, the eye requires such variety (seemingly infinite) to rest on.

Chestnut trees are generally bare, showing only a thin crescent of burs, for they are very small this year. I climb one on Pine Hill, looking over Flint's Pond, which, indeed, I see from the ground. These young chestnuts growing in clumps from a stump are hard to climb, having few limbs below, far apart, and they dead and rotten.

The brightest tint of the black oaks that I remember was some yellow gleams from half green and brownish leaves; *i. e.*, the tops of the large trees have this yellowish and green look. It is a mellow yellow enough, without any red. The brightest of the red oaks were a pretty delicate scarlet, inclining to a brownish yellow, the effect enhanced by the great size of the leaf.

When, on the 22d, I was looking from the Cliffs on

[1] The fields are russet now when the oaks are brown, especially where the red blackberry vine tinges [?], and continue so to be for a week or two, as Nov. 3d.

the shrub oak plain, etc., calling some of the brightest tints flame-like, I saw the flames of a burning — for we see their smokes of late — two or three miles distant in Lincoln rise above the red shrubbery, and saw how in intensity and brilliancy the real flame distanced all colors, even by day.

Now, especially, we notice not only the silvery leaves of the *Salix alba* but the silvery sheen of pine-needles; *i. e.*, when its old leaves have fallen and trees generally are mostly bare, in the cool Novemberish air and light we observe and enjoy the trembling shimmer and gleam of the pine-needles. I do not know why we perceive this more at this season, unless because the air is so clear and all surfaces reflect more light; and, besides, all the needles now left are fresh ones, or the growth of this year. Also I notice, when the sun is low, the light reflected from the parallel twigs of birches recently bare, etc., like the gleam from gossamer lines. This is another Novemberish phenomenon. Call these November Lights. Hers is a cool, silvery light.

In November consider the sharp, dry rustle of withered leaves; the cool, silvery, and shimmering gleams of light, as above; the fresh bright buds formed and exposed along the twigs; walnuts.

The leaves of the *Populus grandidentata*, though half fallen and turned a pure and handsome yellow, are still wagging as fast as ever. These do not lose their color and wither on the tree like oaks and beeches and some of their allies, and hickories, too, and buttonwood, neither do maples, nor birches quite, nor willows (except the *Salix tristis* and perhaps some of the next

allied),[1] — but they are fresh and unwilted, full of sap and fair as ever when they are first strewn on the ground. I do not think of any tree whose leaves are so fresh and fair when they fall.

The beech has just fairly turned brown of different shades, but not yet crisped or quite withered. Only the young in the shade of the woods are yet green and yellow. Half the leaves of the last are a light yellow with a green midrib, and are quite light and bright seen through the woods. The lower parts, too, of the large tree are yellow yet. I should put this tree, then, either with the main body of the oaks or between them and the scarlet oak. I have not seen enough to judge of their beauty.

Returning in an old wood-path from top of Pine Hill to Goose Pond, I see many goldenrods turned purple — all the leaves. Some of them are *Solidago cæsia* and some (I think) *S. puberula*. Many goldenrods, as *S. odorata*, turn yellow or paler. The *Aster undulatus* is now a dark purple (its leaves), with brighter purple or crimson under sides. The *Viburnum dentatum* leaves, which are rather thin now, are drooping like the *Cornus sericea* (although fresh), and are mixed purplish and light green.

Oct. 26. The sugar maples are about bare, except a few small ones.

Minott remembers how he used to chop beech wood. He says that when frozen it is hard and brittle just like glass, and you must look out for the chips, for, if they strike you in the face, they will cut like a knife.

[1] *Vide* 27th *inst.*

He says that some call the stake-driver "belcher-squelcher," and some, "wollerkertoot." I used to call them "pump-er-gor'." Some say "slug-toot."

The largest scarlet oak that I remember hereabouts stands by the penthorum pool in the Sleepy Hollow cemetery, and is now in its prime. I found the sap was flowing fast in it.[1] White birches, elms, chestnuts, *Salix alba* (small willows), and white maple are a long time falling. The scarlet oak generally is not in prime till now, or even later.

I wear a thicker coat, my single thick fall coat, at last, and begin to feel my fingers cool early and late.

One shopkeeper has hung out woollen gloves and even thick buckskin mittens by his door, foreseeing what his customers will want as soon as it is finger-cold, and determined to get the start of his fellows.

Oct. 27. P. M. — Sail to Fair Haven Pond.

A moderate northerly wind and pleasant, clear day. There is a slight rustle from the withered pontederia. The *Scirpus lacustris*, which was all conspicuously green on the 16th, has changed to a dull or brownish yellow. The bayonet rush also has partly changed, and now, the river being perhaps lower than before this season, shows its rainbow colors, though dull. It depends, then, on the river being low at an earlier period, say a month ago at least, when this juncus is in its full vigor, — though then, of course, you would not get the yellow! — that the colors may be bright. I distinguish four colors now, perfectly horizontal and parallel bars, as it were, six or

[1] Also in another Nov. 2d. It had a pleasant acorn-like taste.

eight inches wide as you look at the side of a dense patch along the shallow shore. The lowest is a dull red, the next clear green, then dull yellowish, and then dark brown. These colors, though never brilliant, are yet noticeable, and, when you look at a long and dense patch, have a rainbow-like effect. The red (or pinkish) is that part which has been recently submerged; the green, that which has not withered; the yellowish, what has changed; and the brown, the withered extremity, since it dies downward gradually from the tip to the bottom. The amount of it is that it decays gradually, beginning at the top, and throughout a large patch one keeps pace with another, and different parts of the plant being in different stages or states at the same time and, moreover, the whole being of a uniform height, a particular color in one plant corresponds exactly to the same in another, and so, though a single stalk would not attract attention, when seen in the mass they have this singular effect. I call it, therefore, the rainbow rush. When, moreover, you see it reflected in the water, the effect is very much increased.

The leaves of the *Salix cordata* are now generally withered and many more fallen. They are light-brown, and many remain on the twigs, so many that this willow and the *tristis* I think must be peculiar in this respect [1] as well as its [*sic*] turning scarlet. Some others, as the *sericea*, are still yellow and greenish and have not been touched by frost. They must be tougher.

At the east shore of Fair Haven Pond I see that clams have been moving close to the water's edge. They have

[1] Yes.

just moved a few feet toward the deeper water, but they came round a little, like a single wheel on its edge.

Alders are fallen without any noticeable change of color. The leaves of young oaks are now generally withered, but many leaves of large oaks are greenish or alive yet. Many of them fall before withering. I see some now three quarters bare, with many living leaves left. Is it not because on larger trees they are raised above the effect of frost?

We have a cool, white sunset, Novemberish, and no redness to warm our thoughts.

Not only the leaves of trees and shrubs and flowers have been changing and withering, but almost countless sedges and grasses. They become pale-brown and bleached after the frost has killed them, and give that peculiar light, almost silvery, sheen to the fields in November. The colors of the fields make haste to harmonize with the snowy mantle which is soon to invest them and with the cool, white twilights of that season which is itself the twilight of the year. They become more and more the color of the frost which rests on them. Think of the interminable forest of grasses which dies down to the ground every autumn! What a more than Xerxean army of wool-grasses and sedges without fame lie down to an ignominious death, as the mowers esteem it, in our river meadows each year, and become "old fog" to trouble the mowers, lodging as they fall, that might have been the straw beds of horses and cattle, tucked under them every night!

The fine-culmed purple grass, which lately we admired so much, is now bleached as light as any of them.

Culms and leaves robbed of their color and withered by cold. This is what makes November — and the light reflected from the bleached culms of grasses and the bare twigs of trees! When many hard frosts have formed and melted on the fields and stiffened grass, they leave them almost as silvery as themselves. There is hardly a surface to absorb the light.

It is remarkable that the autumnal change of our woods has left no deeper impression on our literature yet.[1] There is no record of it in English poetry, apparently because, according to all accounts, the trees acquire but few bright colors there. Neither do I know any adequate notice of it in our own youthful literature, nor in the traditions of the Indians. One would say it was the very phenomenon to have caught a savage eye, so devoted to bright colors. In our poetry and science there are many references to this phenomenon, but it has received no such particular attention as it deserves. High-colored as are most political speeches, I do not detect any reflection, even, from the autumnal tints in them. They are as colorless and lifeless as the herbage in November.

The year, with these dazzling colors on its margin, lies spread open like an illustrated volume. The preacher does not utter the essence of its teaching.

A great many, indeed, have never seen this, the flower, or rather ripe fruit, of the year, — many who have spent their lives in towns and never chanced to come into the country at this season. I remember riding with one such citizen, who, though a fortnight too late for the most

[1] [*Excursions*, p. 249; Riv. 305.]

brilliant tints, was taken by surprise, and would not believe that the tints had been any brighter. He had never heard of this phenomenon before.

October has not *colored* our poetry yet.

Not only many have never witnessed this phenomenon, but it is scarcely remembered by the majority from year to year.[1]

It is impossible to describe the infinite variety of hues, tints, and shades, for the language affords no names for them, and we must apply the same term monotonously to twenty different things. If I could exhibit so many different trees, or only leaves, the effect would be different. When the tints are the same they differ so much in purity and delicacy that language, to describe them truly, would have not only to be greatly enriched, but as it were dyed to the same colors herself, and speak to the eye as well as to the ear. And it is these subtle differences which especially attract and charm our eyes. Where else will you study color under such advantages? What other school of design can vie with this?[2] To describe these colored leaves you must use colored words. How tame and ineffectual must be the words with which we attempt to describe that subtle difference of tint, which so charms the eye? Who will undertake to describe in words the difference in tint between two neighboring leaves on the same tree? or of two thousand? — for by so many the eye is addressed in a glance. In describing the richly spotted leaves, for instance, how often we find ourselves using ineffectually words which

[1] [*Excursions*, p. 249; Riv. 305, 306.]

[2] [*Excursions*, p. 273; Riv. 335.]

merely indicate faintly our good intentions, giving them in our despair a terminal twist toward our mark, — such as redd*ish*, yellow*ish*, purpl*ish*, etc. We cannot make a hue of words, for they are not to be compounded like colors, and hence we are obliged to use such ineffectual expressions as reddish brown, etc. They need to be ground together.

Oct. 28. Cattle coming down from up country.

P. M. — Up Assabet to Cedar Swamp.

Here is an Indian-summer day. Not so warm, indeed, as the 19th and 20th, but warm enough for pleasure.

The majority of the white maples are bare, but others are still thickly leaved, the leaves being a greenish yellow. It appears, then, that they hold their leaves longer than our other maples, or most trees. The majority of them do not acquire a bright tint at all, and, though interesting for their early summer blush, their autumnal colors are not remarkable.

The dogwood on the island is perhaps in its prime,[1] — a distinct scarlet, with half of the leaves green in this case. Apparently none have fallen. I see yet also some *Cornus sericea* bushes with leaves turned a clear dark but dull red, rather handsome. Some large red oaks are still as bright as ever, and that is here a brownish yellow, with leaves partly withered; and some are already quite bare.[2] Swamp white oak withers apparently with the white. Some of both are still partly greenish, while others of both are bare.

[1] *Vide* Nov. 5th.

[2] *Vide* 31st.

How handsome the great red oak acorns now! I stand under the tree on Emerson's lot. They are still falling. I heard one fall into the water as I approached, and thought that a musquash had plunged. They strew the ground and the bottom of the river thickly, and while I stand here I hear one strike the boughs with force as it comes down, and drop into the water. The part that was covered by the cup is whitish-woolly. How munificent is Nature to create this profusion of wild fruit, as it were merely to gratify our eyes! Though inedible they are more wholesome to my immortal part, and stand by me longer, than the fruits which I eat. If they had been plums or chestnuts I should have eaten them on the spot and probably forgotten them. They would have afforded only a momentary gratification, but being acorns, I remember, and as it were *feed* on, them still. They are untasted fruits forever in store for me. I know not of their flavor as yet. That is postponed to some still unimagined winter evening. These which we admire but do not eat are nuts of the gods. When time is no more we shall crack them. I cannot help liking them better than horse-chestnuts, which are of a similar color, not only because they are of a much handsomer form, but because they are indigenous. What hale, plump fellows they are! They can afford not to be useful to me, nor to know me or be known by me. They go their way, I go mine, and it turns out that sometimes I go *after* them.

The hemlock is in the midst of its fall, and the leaves strew the ground like grain. They are inconspicuous on the tree.

The *Populus grandidentata* leaves are not all fallen yet. This, then, is late to lose its leaves, later, rather, than the sugar maple. Its leaves are large and conspicuous on the ground, and from their freshness make a great show there. It is later to fall than the *tremuliformis*,[1] as it was later to bloom.

I now begin to notice the evergreen ferns, when the others are all withered or fallen. The black willows have been bare some time. Panicled andromeda and winterberry are about bare. Pitch pines are falling; and white cedars are apparently in the midst of their fall, turning a pale brown and strewing the ground.

There are now but few bright leaves to be seen,[2] *viz.*: —

3. Pitch pine (though most is faded on the trees).
2. Larch.
1. Scarlet oak.
4. *Populus grandidentata*[3] (thin-leaved).[4]
6. A few yellow leaves on young willows, coniferous ones and *S. sericea* especially, still holding on to the extremity of the twigs.
8. Some crimson *Viburnum nudum* (thin-leaved).
9. Meadow-sweet.
10. Some *Viburnum dentatum*, greenish purple (thin-leaved, not conspicuous).
5. Some small white birch tops.
5. High blueberry (more common than last).

[1] No. *Vide* [p. 261].
[2] *Vide* the 9th and onward.
[3] Some on the 5th.
[4] (4) *P. tremuloides*, thicker-leaved, but rather duller than last.

7. Some silky cornel.
14. Flowering dogwood.[1]
11. Gooseberry.
12. Common wild rose, yellow inclining to scarlet.
12. *Rosa Carolina* (clear dark red) and sweet-briar.
13. Staghorn sumach, in cool places and shaded.

Numbered in the order of their importance, most being either very thin-leaved now, or rare.

Oct. 29. 6.30 A. M. — Very hard frost these mornings; the grasses, to their finest branches, clothed with it.

The cat comes stealthily creeping towards some prey amid the withered flowers in the garden, which being disturbed by my approach, she runs low toward it with an unusual glare or superficial light in her eye, ignoring her oldest acquaintance, as wild as her remotest ancestor; and presently I see the first tree sparrow hopping there. I hear them also amid the alders by the river, singing sweetly, — but a few notes.

Notwithstanding the few handsome scarlet oaks that may yet be found, and the larches and pitch pines and the few thin-leaved *Populus grandidentata*, the brightness of the foliage, generally speaking, is past.

P. M. — To Baker Farm, on foot.

The *Salix Torreyana* on the right has but few leaves near the extremities (like the *S. sericea* of the river), and is later to fall than the *S. rostrata* near by. Its leaves turn merely a brownish yellow, and not scarlet like the *cordata*, so that it is not allied to that in this respect.

[1] Not yet at height. *Vide* Nov. 5.

(In *S. tristis* path about Well Meadow Field the *S. tristis* is mostly fallen or withered on the twigs, and the curled leaves lie thickly like ashes about the bases of the shrubs.)

Notice the fuzzy black and reddish caterpillars on ground.

I look north from the causeway at Heywood's meadow. How rich some scarlet oaks imbosomed in pines, their branches (still bright) intimately intermingled with the pine! They have their full effect there. The pine boughs are the green calyx to its [*sic*] petals. Without these pines for contrast the autumnal tints would lose a considerable part of their effect.

The white birches being now generally bare, they stand along the east side of Heywood's meadow slender, parallel white stems, revealed in a pretty reddish maze produced by their fine branches. It is a lesser and denser smoke (?) than the maple one. The branches must be thick, like those of maples and birches, to give the effect of smoke, and most trees have fewer and coarser branches, or do not grow in such dense masses.

Nature now, like an athlete, begins to strip herself in earnest for her contest with her great antagonist Winter. In the bare trees and twigs what a display of muscle!

Looking toward Spanish Brook, I see the white pines, a clear green, rising amid and above the pitch pines, which are parti-colored, glowing internally with the warm yellow of the old leaves. Of our Concord evergreens, only the white and pitch pines are interesting in their change, for only their leaves are bright and conspicuous enough.

I notice a barberry bush in the woods[1] still thickly clothed, but merely yellowish-green, not showy. Is not this commonly the case with the introduced European plants? Have they not European habits? And are they not also late to fall, killed before they are ripe?—*e. g.* the quince, apple, pear(?), barberry, silvery abele, privet, plum(?), white willow, weeping willow, lilac, hawthorn (the horse-chestnut and European mountain-ash are distincter yellow, and the Scotch larch is at least as bright as ours at same time; the Lombardy poplar is a handsome yellow (some branches early), and the cultivated cherry is quite handsome orange, often yellowish), which, with exceptions in parenthesis, are inglorious in their decay.

As the perfect winged and usually bright-colored insect is but short-lived, so the leaves ripen but to fall.

I go along the wooded hillside southwest of Spanish Brook. With the fall of the white pine, etc., the *Pyrola umbellata* and the lycopodiums, and even evergreen ferns, suddenly emerge as from obscurity. If these plants are to be evergreen, how much they require this brown and withered carpet to be spread under them for effect. Now, too, the light is let in to show them. Cold(?)-blooded wood frogs hop[2] about amid the cool ferns and lycopodiums.

Am surprised to see, by the path to Baker Farm, a very tall and slender large *Populus tremuliformis* still thickly clothed with leaves which are merely yellowish-green, later than any *P. grandidentata* I know. It must

[1] And elsewhere the same.

[2] Or earlier?

be owing to its height above frosts, for the leaves of sprouts are fallen and withered some time, and of young trees commonly. Afterwards, when on the Cliff, I perceive that, birches being bare (or as good as bare), one or two poplars — I am not sure which species — take[1] their places on the Shrub Oak Plain, and are brighter than they were, for they hold out to burn longer than the birch. The birch has now generally dropped its golden spangles, and those oak sprout-lands where they glowed are now an almost uniform brown red. Or, strictly speaking, they are pale-brown, mottled with dull red where the small scarlet oak stands.[2]

I find the white pine cones, which have long since opened, hard to come off.

The thickly fallen leaves make it slippery in the woods, especially climbing hills, as the Cliffs. The late wood tortoise and squirrel betrayed.

Apple trees, though many are thick-leaved, are in the midst of their fall. Our English cherry has fallen. The silvery abele is still densely leaved, and green, or at most a yellowish green. The lilac still thickly leaved; a yellowish green or greenish yellow as the case may be. Privet thickly leaved, yellowish-green.

If these plants acquire brighter tints in Europe, then one would say that they did not fully ripen their leaves here before they were killed. The orchard trees are not for beauty, but use. English plants have English habits here: they are not yet acclimated; they are early or late as if ours were an English spring or autumn; and no

[1] *Tremuloides*, bright at distance. *Vide* Nov. 2d.

[2] Shrub oaks withered. *Vide* Nov. 2d.

doubt in course of time a change will be produced in their constitutions similar to that which is observed in the English man here.

Oct. 30. Rain and wind, bringing down the leaves and destroying the little remaining brilliancy. The buttonwoods are in the midst of their fall. Some are bare. They are late among the trees of the street.

I see that Prichard's mountain-ash (European) has lately put forth new leaves when all the old have fallen, and they are four or five inches long! But the American has not started. It knows better.

Beware how you meddle with a buttonwood stump. I remember when one undertook to dig a large one up that he might set a front-yard post on the spot, but I forget how much it cost, or how many weeks one man was about it before it was all cut up and removed. It would have been better to set the post *in* it. One man who has just cut down a buttonwood had it disposed of, all but eight feet of the butt, when a neighbor offered him five cents for it, and though it contained a cord of wood, he, as he says, "took him up mighty quick," for if a man's time were of value he could not afford to be splitting it.

In Rees's Cyclopædia, under the head of the Fall of the Leaf, mention is made of the leaves at this season "changing their healthy green color to more or less of a yellow, sometimes a reddish hue." And after speaking of the remarkable brilliancy of the American forests, he says that some European plants allied to the brilliant American ones assume bright hues in the fall.

What is commonly described as the autumnal tints of the oaks generally, is for the most part those tints or hues which they have when partially withered, corresponding to those which those of more truly deciduous trees have when freshly fallen, and not merely the tints of their maturity, as in the maple, etc. It may account for this to say that the scarlet oak especially withers very slowly and gradually, and retains some brightness to the middle of November, and large red and black and swamp white oaks, especially the two last (or excepting some of the first), are not commonly so interesting in the maturity of their leaves as before or after.

Oct. 31. P. M. — To Conantum.

Our currants bare; how long?

The Italian poplars are now a dull greenish yellow, not nearly so fair as the few leaves that had turned some time ago. Some silvery abeles are the same color.[1] I go over the Hubbard Bridge causeway. The young *Salix alba* osiers are just bare, or nearly so, and the yellow twigs accordingly begin to show.

It is a fine day, Indian-summer-like, and there is considerable gossamer on the causeway and blowing from all trees. That warm weather of the 19th and 20th was, methinks, the same sort of weather with the most pleasant in November (which last alone some allow to be Indian summer), only more to be expected.

I see many red oaks, thickly leaved, fresh and at the height of their tint. These are pretty clear yellow. It is much clearer yellow than any black oak, but some others

[1] But both turn more yellow.

are about bare. These and scarlet oaks, which are yet more numerous, are the only oaks not withered that I notice to-day, except one middle-sized white oak probably protected from frost under Lee's Cliff.

Between the absolutely deciduous plants and the evergreens are all degrees, not only those which retain their withered leaves all winter, but those, commonly called evergreen, which, though slow to change, yet acquire at last a ruddy color while they keep their leaves, as the lambkill and water andromeda (?).

Get a good sight on Conantum of a sparrow (such as I have seen in flocks some time), which utters a sharp *te-te-te* quickly repeated as it flies, sitting on a wall three or four rods off. I see that it is rather long and slender, is perhaps dusky-ash above with some black backward; has a pretty long black bill, a white ring about eye, white chin and line under cheek, a black (or dark) spotted breast and dirty cream-color beneath; legs long and slender and perhaps reddish-brown, two faint light bars on wings; but, what distinguishes it more, it keeps gently jerking or tossing its tail as it sits, and when a flock flies over you see the tails distinctly black beneath. Though I detected no yellow, yet I think from the note that it must be the shore lark (such as I saw March 24th) in their fall plumage. They are a common bird at this season, I think.[1]

I see a middle-sized red oak side by side with a black one under Lee's Cliff. The first is still pretty fresh, the latter completely withered. The withered leaves of the first are flat, apparently thin, and a yellowish brown;

[1] [Titlarks?]

those of the black are much curled and a very different and dark brown, and look thicker.

Barberry generally is thickly leaved and only somewhat yellowish or scarlet, say russet.

I tasted some of the very small grapes on Blackberry Steep, such as I had a jelly made of. Though shrivelled, and therefore ripe, they are very acid and inedible.

The slippery elm has a few scattered leaves on it, while the common close by is bare. So I think the former is later to fall. You may well call it bare.

The cedar at Lee's Cliff has apparently just fallen, — almost.

As I sit on the Cliff there, the sun is now getting low, and the woods in Lincoln south and east of me are lit up by its more level rays, and there is brought out a more brilliant redness in the scarlet oaks, scattered so equally over the forest, than you would have believed was in them. Every tree of this species which is visible in these directions, even to the horizon, now stands out distinctly red. Some great ones lift their red backs high above the woods near the Codman place, like huge roses with a myriad fine petals, and some more slender ones, in a small grove of white pines on Pine Hill in the east, in the very horizon, alternating with the pines on the edge of the grove and shouldering them with their red coats, — an intense, burning red which would lose some of its strength, methinks, with every step you might take toward them, — look like soldiers in red amid hunters in green. This time it is *Lincoln* green, too. Until the sun thus lit them up you would not have believed that there were so many redcoats in the forest army. Looking

westward, their colors are lost in a blaze of light, but in other directions the whole forest is a flower-garden, in which these late roses burn, alternating with green, while the so-called "gardeners," working here and there, perchance, beneath, with spade and water-pot, see only a few little asters amid withered leaves, for the shade that lurks amid their foliage does not report itself at this distance. They are unanimously red. The focus of their reflected [color] is in the atmosphere far on this side. Every such tree, especially in the horizon, becomes a nucleus of red, as it were, where, with the declining sun, the redness grows and glows like a cloud. It only has some comparatively dull-red leaves for a nucleus and to start it, and it becomes an intense scarlet or red mist, or fire which finds fuel for itself in the very atmosphere. I have no doubt that you would be disappointed in the brilliancy of those trees if you were to walk to them. You see a redder tree than exists. It is a strong red, which gathers strength from the air on its way to your eye. It is partly borrowed fire, borrowed of the sun. The scarlet oak asks the clear sky and the brightness of the Indian summer. These bring out its color. If the sun goes into a cloud they become indistinct.

These are my China asters, my late garden flowers. It costs me nothing for a gardener. The falling leaves, all over the forest, are protecting the roots of my plants. Only look at what is to be seen, and you will have garden enough, without deepening the soil of your yard. We have only to elevate our view a little to see the whole forest as a garden.[1]

[1] [*Excursions*, pp. 282–284; Riv. 346–349.]

To my surprise, the only yellow that I see amid the universal red and green and chocolate is one large tree-top in the forest, a mile off in the east, across the pond, which by its form and color I know to be my late acquaintance the tall aspen (*tremuliformis*) of the 29th. It, too, is far more yellow at this distance than it was close at hand, and so are the Lombardy poplars in our streets. The *Salix alba*, too, looks yellower at a distance now. Their dull-brown and green colors do not report themselves so far, while the yellow *crescit eundo*, and we see the sun reflected in it. After walking for a couple of hours the other day through the woods, I came to the base of a tall aspen, which I do not remember to have seen before, standing in the midst of the woods in the next town, still thickly leaved and turned to greenish yellow. It is perhaps the largest of its species that I know. It was by merest accident that I stumbled on it, and if I had been sent to find it, I should have thought it to be, as we say, like looking for a needle in a haymow. All summer, and it chances for so many years, it has been concealed to me; but now, walking in a different direction, to the same hilltop from which I saw the scarlet oaks, and looking off just before sunset, when all other trees visible for miles around are reddish or green, I distinguish my new acquaintance by its yellow color. Such is its fame, at last, and reward for living in that solitude and obscurity. It is the most distinct tree in all the landscape, and would be the cynosure of all eyes here. Thus it plays its part in the choir. I made a minute of its locality, glad to know where so large an aspen grew. Then it seemed peculiar in its solitude and

obscurity. It seemed the obscurest of trees. Now it was seen to be equally peculiar for its distinctness and prominence. Each tree (in October) runs up its flag and we know [what] colors it sails under. The sailor sails, and the soldier marches, under a color which will report his virtue farthest, and the ship's "private signals" must be such as can be distinguished at the greatest distance. The eye, which distinguishes and appreciates color, is itself the seat of color in the human body.

It is as if it recognized me too, and gladly, coming half-way to meet me, and now the acquaintance thus propitiously formed will, I trust, be permanent.

Of the three (?) mocker-nuts on Conantum top only the southernmost is bare, the rest are thickly leaved yet. The *Viburnum Lentago* is about bare.

That hour-glass apple shrub near the old Conantum house is full of small yellow fruit. Thus it is with them. By the end of some October, when their leaves have fallen, you see them glowing with an abundance of wild fruit, which the cows cannot get at over the bushy and thorny hedge which surrounds them.[1] Such is their pursuit of knowledge through difficulties.[2] Though they may have taken the hour-glass form, think not that their sands are run out. So is it with the rude, neglected genius from amid the country hills; he suffers many a check at first, browsed on by fate, springing in but a rocky pasture, the nursery of other creatures there, and he grows broad and strong, and scraggy and thorny, hopelessly stunted, you would say, and not like a sleek orchard tree

[1] [*Excursions*, p. 306; Riv. 376.]

[2] [*Excursions*, p. 307; Riv. 377.]

all whose forces are husbanded and the precious early years not lost, and when at first, within this rind and hedge, the man shoots up, you see the thorny scrub of his youth about him, and he walks like an hour-glass, aspiring above, it is true, but held down and impeded by the rubbish of old difficulties overcome, and you seem to see his sands running out. But at length, thanks to his rude culture, he attains to his full stature, and every vestige of the thorny hedge which clung to his youth disappears, and he bears golden crops of Porters or Baldwins, whose fame will spread through all orchards for generations to come, while that thrifty orchard tree which was his competitor will, perchance, have long since ceased to bear its engrafted fruit and decayed.[1]

The beach plum is withering green, say with the apple trees, which are half of them bare. Larches fairly begun to fall; so they are at height.

[1] [See *Excursions*, p. 307; Riv. 377.]

V

NOVEMBER, 1858

(ÆT. 41)

Nov. 1. P. M. — To Poplar Hill.

Many black oaks are bare in Sleepy Hollow. Now you easily detect where larches grow, *viz.* in the swamp north of Sleepy Hollow. They are far more distinct than at any other season. They are very regular soft yellow pyramids, as I see them from the Poplar Hill. Unlike the pines there is no greenness left to alternate with their yellow, but they are a uniform yellow, and they differ from other yellow trees in the generally regular pyramidal outline, *i. e.* these middling-sized trees. These trees now cannot easily be mistaken for any other, because they are the only conspicuously yellow trees now left in the woods, except a very few aspens of both kinds, not one in a square mile, and these are of a very different hue as well as form, the birches, etc., having fallen. The larch, apparently, will soon be the only yellow tree left in the woods. It is almost quite alone now. But in the summer it is not easy to distinguish them either by their color or form at a distance.

If you wish to count the scarlet oaks. do it now. Stand on a hilltop in the woods, when the sun is an hour high and the sky is clear, and every one within range of your vision will be revealed. You might live

to the age of Methusaleh and never find a tithe of them otherwise.[1]

We are not wont to see our dooryard as a part of the earth's surface. The gardener does not perceive that some ridge or mound in his garden or lawn is related to yonder hill or the still more distant mountain in the horizon, is, perchance, a humble spur of the last. We are wont to look on the earth still as a sort of chaos, formless and lumpish. I notice from this height that the curving moraine forming the west side of Sleepy Hollow is one of several arms or fingers which stretch away from the hill range that runs down the north side of the Boston road, turning northward at the Court-House; that this finger-like moraine is continued northward by itself almost to the river, and points plainly enough to Ponkawtasset Hill on the other side, even if the Poplar Hill range itself did not indicate this connection; and so the sloping cemetery lots on the west of Sleepy Hollow are related to the distant Ponkawtasset. The smooth-shaven knoll in the lawn, on which the children swing, is, perchance, only a spur of some mountains of the moon, which no traveller has ever reached, heaved up by the same impulse.

The hawthorn is but three-quarters fallen and is a greenish yellow or yellowish green.

I hear in the fields just before sundown a shriller chirping of a few crickets, reminding me that their song is getting thin and will soon be quenched.

As I stood on the south bank of the river a hundred rods southwest of John Flint's, the sun being just about to enter a long and broad dark-blue or slate-colored

[1] [*Excursions*, p. 283; Riv. 348.]

cloud in the horizon, a cold, dark bank, I saw that the reflection of Flint's white house in the river, prolonged by a slight ripple so as to reach the reflected cloud, was a very distinct and luminous light blue.

As the afternoons grow shorter, and the early evening drives us home to complete our chores, we are reminded of the shortness of life, and become more pensive, at least in this twilight of the year. We are prompted to make haste and finish our work before the night comes. I leaned over a rail in the twilight on the Walden road, waiting for the evening mail to be distributed, when such thoughts visited me. I seemed to recognize the November evening as a familiar thing come round again, and yet I could hardly tell whether I had ever known it or only divined it. The November twilights just begun! It appeared like a part of a panorama at which I sat spectator, a part with which I was perfectly familiar just coming into view, and I foresaw how it would look and roll along, and prepared to be pleased. Just such a piece of art merely, though infinitely sweet and grand, did it appear to me, and just as little were any active duties required of me. We are independent on all that we see. The hangman whom I have *seen* cannot hang me. The earth which I have *seen* cannot bury me. Such doubleness and distance does sight prove. Only the rich and such as are troubled with ennui are implicated in the maze of phenomena. You cannot see anything until you are clear of it. The long railroad causeway through the meadows west of me, the still twilight in which hardly a cricket was heard,[1] the dark bank of

[1] Probably too cool for any these evenings; only in the afternoon.

clouds in the horizon long after sunset, the villagers crowding to the post-office, and the hastening home to supper by candle-light, had I not seen all this before! What new sweet was I to extract from it? Truly they mean that we shall learn our lesson well. Nature gets thumbed like an old spelling-book. The almshouse and Frederick were still as last November. I was no nearer, methinks, nor further off from my friends. Yet I sat the bench with perfect contentment, unwilling to exchange the familiar vision that was to be unrolled for any treasure or heaven that could be imagined. Sure to keep just so far apart in our orbits still, in obedience to the laws of attraction and repulsion, affording each other only steady but indispensable starlight. It was as if I was promised the greatest novelty the world has ever seen or shall see, though the utmost possible novelty would be the difference between me and myself a year ago. This alone encouraged me, and was my fuel for the approaching winter. That we may behold the panorama with this slight improvement or change, this is what we sustain life for with so much effort from year to year.

And yet there is no more tempting novelty than this new November. No going to Europe or another world is to be named with it. Give me the old familiar walk, post-office and all, with this ever new self, with this infinite expectation and faith, which does not know when it is beaten. We 'll go nutting once more. We 'll pluck the nut of the world, and crack it in the winter evenings. Theatres and all other sightseeing are puppet-shows in comparison. I will take another walk to the Cliff, an-

other row on the river, another skate on the meadow, be out in the first snow, and associate with the winter birds. Here I am at home. In the bare and bleached crust of the earth I recognize my friend.

One actual Frederick that you know is worth a million only read of. Pray, am I altogether a bachelor, or am I a widower, that I should go away and leave my bride? This Morrow that is ever knocking with irresistible force at our door, there is no such guest as that. I will stay at home and receive company.

I want nothing new, if I can have but a tithe of the old secured to me. I will spurn all wealth beside. Think of the consummate folly of attempting to go away from *here!* When the constant endeavor should be to get nearer and nearer *here.* Here are all the friends I ever had or shall have, and as friendly as ever. Why, I never had any quarrel with a friend but it was just as sweet as unanimity could be. I do not think we budge an inch forward or backward in relation to our friends. How many things can you go away from? They see the comet from the northwest coast just as plainly as we do, and the same stars through its tail. Take the shortest way round and stay at home. A man dwells in his native valley like a corolla in its calyx, like an acorn in its cup. *Here,* of course, is all that you love, all that you expect, all that you are. Here is your bride elect, as close to you as she can be got. Here is all the best and all the worst you can imagine. What more do you want? Bear hereaway then! Foolish people imagine that what they imagine is somewhere else. That stuff is not made in any factory but their own.

Nov. 2. P. M. — To Cliff.

A cool gray November afternoon; sky overcast.

Looking back from the causeway, the large willow by Mrs. Bigelow's and a silvery abele are the only leafy trees to be seen in and over the village, the first a yellowish mass, also some Lombardy poplars on the outskirts. It is remarkable that these (and the weeping willow, *yet green*) and a few of our *Populus tremuloides* (lately the *grandidentata* also[1]), all closely allied, are the only trees now (except the larch and perhaps a very few small white birches) which are conspicuously yellow, almost the only deciduous ones whose leaves are not withered, *i. e.* except scarlet oaks, red oaks, and some of the others, etc.

I see here and there yet some middle-sized coniferous willows, between *humilis* and *discolor*, whose upper leaves, left on, are quite bright lemon-yellow in dry places. These single leaves brighter than their predecessors which have fallen. The pitch pine is apparently a little past the midst of its fall. In sprout-lands some young birches are still rather leafy and bright-colored. Going over the newly cleared pasture on the northeast of Fair Haven Hill, I see that the scarlet oaks are more generally bright than on the 22d *ult.* Even the little sprouts in the russet pasture and the high tree-tops in the yew wood burn now, when the middle-sized bushes in the sprout-lands have mostly gone out. The large scarlet oak trees and tree-tops in woods, perhaps especially on hills, apparently are late because raised above the influence of the early frosts. Methinks they are as bright, even this dark day, as I ever saw them. The blossoming of the

[1] Still one.

scarlet oak! the forest flower, surpassing all in splendor (at least since the maple)! I do not know but they interest me more than the maples, they are so widely and equally dispersed throughout the forest; they are so hardy, a nobler tree on the whole, lasting into November; our chief November flower, abiding the approach of winter with us, imparting warmth to November prospects. It is remarkable that the latest bright color that is general should be this deep, dark scarlet and red, the intensest of colors, the ripest fruit of the year, like the cheek of a glossy red ripe apple from the cold Isle of Orleans, which will not be mellow for eating till next spring! When I rise to a hilltop, a thousand of these great oak roses, distributed on every side as far as the horizon! This my unfailing prospect for a fortnight past as surely as I rose to a hilltop! This late forest-flower surpasses all that spring or summer could do. Their colors were but rare and dainty specks, which made no impression on a distant eye. Now it is an extended forest or a mountain-side that bursts into bloom, through or along which we may journey from day to day. I admire these roses three or four miles off in the horizon. Comparatively, our gardening is on a petty scale, the gardener still nursing a few asters amid dead weeds, ignorant of the gigantic asters and roses which, as it were, overshadow him and ask for none of his care. Comparatively, it is like a little red paint ground on a teacup and held up against the sunset sky. Why not take more elevated and broader views, walk in the greater garden, not skulk in a little "debauched" nook of it? Consider the beauty of the earth, and not merely of a few impounded

herbs? However, you will not see these splendors, whether you stand on the hilltop or in the hollow, unless you are prepared to see them. The gardener can see only the gardener's garden, wherever he goes. The beauty of the earth answers exactly to your demand and appreciation.[1]

Apples in the village and lower ground are now generally killed brown and crisp, without having turned yellow, especially the upper parts, while those on hills and [in] warm places turned yellowish or russet, and so ripened to their fall. Of quince bushes the same, only they are a little later and are greener yet.

The sap is now frequently flowing fast in the scarlet oaks (as I have not observed it in the others), and has a pleasant acorn-like taste. Their bright tints, now that most other oaks are withered, are connected with this phenomenon. They are full of sap and life. They flow like a sugar maple in the spring. It has a pleasantly astringent taste, this strong oak wine.[2]

That small poplar seen from Cliffs on the 29th is a *P. tremuloides*. It makes the impression of a bright and clear yellow at a distance, though it is rather dingy and spotted.

It is later, then (this and the Baker Farm one), than any *P. grandidentata* that I know.

Looking down on the oak wood southeast of Yew Wood, I see some large black oak tops a brown yellow still; so generally it shows life a little longer than the white and swamp white apparently. One just beyond the smallpox burying-ground is generally greenish in-

[1] [*Excursions*, pp. 284–286; Riv. 349–351.]

[2] [*Excursions*, pp. 281, 282; Riv. 346.]

clining to scarlet, looking very much like a scarlet oak not yet completely changed, for the leaf would not be distinguished. However, the nuts, with yellow meat, and the strong bitter yellow bark betrayed it. Yet it did not amount to scarlet.

I see a few shrub oak leaves still fresh where sheltered. The little chinquapin has fallen.

I go past the Well Meadow Field. There is a sympathy between this cold, gray, overcast November afternoon and the grayish-brown oak leaves and russet fields.

The Scotch larch is changed at least as bright as ours.

Nov. 3. Colder weather, true November weather, comes again to-night, and I must rekindle my fire, which I had done without of late. I must walk briskly in order to keep warm in my thin coat.

P. M. — To Annursnack.

I am inclined to think that pignuts fall earlier than mocker-nuts, *i. e.* the leaves, and that the first are now about fallen (?). Those on Nawshawtuct are bare, but I see a great many hickories of some kind not nearly bare.

Monroe's arbor-vitæ hedge has fallen. Put it with the white pine. The jay is the bird of October. I have seen it repeatedly flitting amid the bright leaves, of a different color from them all and equally bright, and taking its flight from grove to grove. It, too, with its bright color, stands for some ripeness in the bird harvest. And its scream! it is as if it blowed on the edge of an October leaf. It is never more in its element and at home than when flitting amid these brilliant colors. No doubt it delights in bright color, and so has begged for itself a bril-

liant coat. It is not gathering seeds from the sod, too busy to look around, while fleeing the country. It is wide awake to what is going on, on the *qui vive*. It flies to some bright tree and bruits its splendors abroad.

By fall I mean literally the falling of the leaves, though some mean by it the changing or the acquisition of a brighter color. This I call the autumnal tint, the ripening to the fall.

The only white birch leaves now seen are those lingering green terminal leaves of the 23d, now at last turned yellow,[1] for they are now burnt upward to the last spark and glimmering. Methinks the birch ripens its leaves very perfectly though gradually.

I should say that that tree which ripened its leaves well, like this, was better suited to the climate than one like the locust and most apples, — which was mostly killed by frost first annually. Perhaps this tells at last on the constitution of the tree, and that variety would be safest to cultivate which matured its leaves best.

The pitch pine fallen and falling leaves now and for some time have not been bright or yellow, but brown.

At base of Annursnack I find one or two fringed gentians yet open, but even the stems are generally killed. I notice that the cows lately admitted to the meadows and orchards have browsed the grass, etc., closely, on that strip between the dry hillside and the wet meadow, where it is undoubtedly sweetest and freshest yet, and where it chances that this late flower the gentian grows. There, too, grows the herbage which is now the most grateful to the cattle. Also *Aster undulatus* is still

[1] And at least seven days later.

freshly in bloom; yarrow, etc., etc. Much *Lycopodium complanatum* not open yet.

Returning, I see at the very northwest end of the White Cedar Swamp a little elder, still quite leafy and green, near the path on the edge of the swamp. Its leafets are commonly nine, and the lower two or more are commonly divided. This seemed peculiarly downy beneath, even "sub-pubescent," as Bigelow describes the *Sambucus pubens* to be. Compare it with the common.[1] Also by it is *Viburnum nudum*, still quite fresh and green, the slender shoots from starting plants very erect and straight.

The lower leaves of the water andromeda are now red,[2] and the lambkill leaves are drooping (is it more than before?) and purplish from the effect of frost in low swamps like this.

Though I listen for them, I do not hear a cricket this afternoon. I think that I heard a few in the afternoon of November 1st. They then sounded peculiarly distinct, being but few here and there on a dry and warm hill, bird-like. Yet these seemed to be singing a little louder and in a little loftier strain, now that the chirp of the cricket generally was quenched.

How long we will follow an illusion! On meeting that one whom I call my friend, I find that I had imagined something that was not there. I am sure to depart sadder than I came. Nothing makes me so dejected as to

[1] It is apparently only a more downy common one, and this may have preserved it from frost.

[2] So at Potter's Swamp, — pretty commonly a dark scarlet, — Nov. 5, 1855.

have met my friends, for they make me doubt if it is possible to have any friends. I feel what a fool I am. I cannot conceive of persons more strange to me than they actually are; not thinking, not believing, not doing as I do; interrupted by me. My only distinction must be that I am the greatest bore they ever had. Not in a single thought agreed; regularly balking one another. But when I get far away, my thoughts return to them. That is the way I *can* visit them. Perhaps it is unaccountable to me why I care for them. Thus I am taught that my friend is not an actual person. When I have withdrawn and am alone, I forget the actual person and remember only my ideal. Then I have a friend again. I am not so ready to perceive the illusion that is in Nature. I certainly come nearer, to say the least, to an actual and joyful intercourse with her. Every day I have more or less communion with her, *as I think*. At least, I do not feel as if I must withdraw out of nature. I feel like a welcome guest. Yet, strictly speaking, the same must be true of nature and of man; our ideal is the only real. It is not the finite and temporal that satisfies or concerns us in either case.

I associate the idea of friendship, methinks, with the person the most foreign to me. This illusion is perpetuated, like superstition in a country long after civilization has been attained to. We are attracted toward a particular person, but no one has discovered the laws of this attraction. When I come nearest to that other *actually*, I am wont to be surprised at my selection. It may be enough that we have met *some time*, and now can never forget it. Some time or other we paid each other

this wonderful compliment, looked largely, humanly, divinely on one another, and now are fated to be acquaintances forever. In the case of nature I am not so conscious of this unsatisfied yearning.

Some oak woods begin to look bare, and even smoky, after their fashion.

Nov. 4. A rainy day.

Called to C. from the outside of his house the other afternoon in the rain. At length he put his head out the attic window, and I inquired if he did n't want to take a walk, but he excused himself, saying that he had a cold. "But," added he, "you can take so much the longer walk. Double it."

On the 1st, when I stood on Poplar Hill, I saw a man, far off by the edge of the river, splitting billets off a stump. Suspecting who it was, I took out my glass, and beheld Goodwin, the one-eyed Ajax, in his short blue frock, short and square-bodied, as broad as for his height he can afford to be, getting his winter's wood; for this is one of the phenomena of the season. As surely as the ants which he disturbs go into winter quarters in the stump when the weather becomes cool, so does G. revisit the stumpy shores with his axe. As usual, his powder-flask peeped out from a pocket on his breast, his gun was slanted over a stump near by, and his boat lay a little further along. He had been at work laying wall still further off, and now, near the end of the day, betook himself to those pursuits which he loved better still. It would be no amusement to me to see a gentleman buy his winter wood. It is to see G. get his. I

helped him tip over a stump or two. He said that the owner of the land had given him leave to get them out, but it seemed to me a condescension for him to ask any man's leave to grub up these stumps. The stumps to those who can use them, I say, — to those who will split them. He might as well ask leave of the farmer to shoot the musquash and the meadow-hen, or I might as well ask leave to look at the landscape. Near by were large hollows in the ground, now grassed over, where he had got out white oak stumps in previous years. But, strange to say, the town does not like to have him get his fuel in this way. They would rather the stumps would rot in the ground, or be floated down-stream to the sea. They have almost without dissent agreed on a different mode of living, with their division of labor. They would have him stick to laying wall, and buy corded wood for his fuel, as they do. He has drawn up an old bridge sleeper and cut his name in it for security, and now he gets into his boat and pushes off in the twilight, saying he will go and see what Mr. Musquash is about.

When the Haverhill fishermen told me that they could distinguish the Concord River stuff (*i. e.* driftwood) I see they were right, for much of it is chestnut rails, and of these they have but few, and those in the southern part of New Hampshire.

If, about the last of October, you ascend any hill in the outskirts of the town and look over the forest, you will see, amid the brown of other oaks, which are now withered, and the green of the pines, the bright-red tops or crescents of the scarlet oaks, very equally and thickly distributed on all sides, even to the horizon. Complete

trees standing exposed on the edges of the forest, where you have never suspected them, or their tops only in the recesses of the forest surface, or perhaps towering above the surrounding trees, or reflecting a warm rose red from the very edge of the horizon in favorable lights. All this you will see, and much more, if you are prepared to see it, — if you *look* for it. Otherwise, regular and universal as this phenomenon is, you will think for threescore years and ten that all the wood is at this season sere and brown. Objects are concealed from our view not so much because they are out of the course of our visual ray (continued) as because there is no intention of the mind and eye toward them. We do not realize how far and widely, or how near and narrowly, we are to look. The greater part of the phenomena of nature are for this reason concealed to us all our lives. Here, too, as in political economy, the supply answers to the demand. Nature does not cast pearls before swine. There is just as much beauty visible to us in the landscape as we are prepared to appreciate, — not a grain more. The actual objects which one person will see from a particular hilltop are just as different from those which another will see as the persons are different. The scarlet oak must, in a sense, be in your eye when you go forth. We cannot see anything until we are possessed with the idea of it, and then we can hardly see anything else. In my botanical rambles I find that first the idea, or image, of a plant occupies my thoughts, though it may at first seem very foreign to this locality, and for some weeks or months I go thinking of it and expecting it unconsciously, and at length I surely see it, and it is henceforth an actual

neighbor of mine. This is the history of my finding a score or more of rare plants which I could name.

Take one of our selectmen and put him on the highest hill in the township, and tell him to look! What, probably, would he see? What would he *select* to look at? Sharpening his sight to the utmost, and putting on the glasses that suited him best, aye, using a spy-glass if he liked, straining his optic nerve to its utmost, and making a full report. Of course, he would see a Brocken spectre of himself. Now take Julius Cæsar, or Emanuel Swedenborg, or a Fiji-Islander, and set him up there! Let them compare notes afterward. Would it appear that they had enjoyed the same prospect? For aught we know, as strange a man as any of these is always at our elbows. It does not appear that anybody saw Shakespeare when he was about in England looking off, but only some of his raiment.

Why, it takes a sharpshooter to bring down even such trivial game as snipes and woodcocks; he must take very particular aim, and know what he is aiming at. He would stand a very small chance if he fired at random into the sky, being told that snipes were flying there. And so it is with him that shoots at beauty. Not till the sky falls will he catch larks, unless he is a trained sportsman. He will not bag any if he does not already know its seasons and haunts and the color of its wing, — if he has not dreamed of it, so that he can *anticipate* it; then, indeed, he flushes it at every step, shoots double and on the wing, with both barrels, even in corn-fields. The sportsman trains himself, dresses, and watches unweariedly, and loads and primes for his particular game.

He prays for it, and so he gets it. After due and long preparation, schooling his eye and hand, dreaming awake and asleep, with gun and paddle and boat, he goes out after meadow-hens, — which most of his townsmen never saw nor dreamed of, — paddles for miles against a head wind, and therefore he gets them. He had them half-way into his bag when he started, and has only to shove them down. The fisherman, too, dreams of fish, till he can almost catch them in his sink-spout. The hen scratches, and finds her food right under where she stands; but such is not the way with the hawk.

The true sportsman can shoot you almost any of his game from his windows. It comes and perches at last on the barrel of his gun; but the rest of the world never see it, with the feathers on. He will keep himself supplied by firing up his chimney. The geese fly exactly under his zenith, and honk when they get there. Twenty musquash have the refusal of each one of his traps before it is empty.[1]

Nov. 5. Humphrey Buttrick says that he finds old and young of both kinds of small rails, and that they breed here, though he never saw their nests.

P. M. — Up Assabet.

The river has risen somewhat, on account of rain yesterday and the 30th. So it was lowest the 30th.

That great fleet of leaves of the 21st October is now sunk to the bottom, near the shore, and are [*sic*] flatted out there, paving it thickly, and but few recently fallen are to be seen on the water; and in the woods the leaves do not lie up so crisp since the rain.

[1] [*Excursions*, pp. 285–288; Riv. 350–354.]

Saw Stewart shoot a Carolina rail, which was standing on the side of a musquash-cabin off Prichard's, within two rods of him. This has no black throat and is probably the female.

The large shallow cups of the red oak acorns look like some buttons I have seen which had lost their core.

The *Cornus florida* on the Island is still full-leafed, and is now completely scarlet, though it was partly green on the 28th. It is apparently in the height of its color there now, or, if more exposed, perhaps it would have been on the 1st of November. This makes it the latest tree to change. The leaves are drooping, like the *C. sericea*, while those of some sprouts at its base are horizontal. Some incline to crimson.

A few white maples are not yet bare, but thinly clothed with dull-yellow leaves which still have life in them. Judging from the two aspens, this tree, and the willows, one would say that the earliest trees to leaf were, perhaps, the last to lose their leaves.

Little dippers were seen yesterday.

The few remaining topmost leaves of the *Salix sericea*, which were the last to change, are now yellow like those of the birch.

Water milkweed has been discounting some days, with its small upright pods.

I hear one cricket this louring day. Since but one is heard, it is the more distinct and therefore seems louder and more musical. It is a clearer note, less creaking than before.

A few *Populus grandidentata* leaves are still left on. The common smooth rose leaves are pretty conspicu-

ously yellow yet along the river, and some dull-reddish high blackberry is seen by the roads. Also meadow-sweet is observed yet with the rose. It is quite still; no wind, no insect hum, and no note of birds, but one hairy woodpecker. That lake grass, *Glyceria fluitans*, is, methinks, more noticeable now than in summer on the surface of the fuller stream, green and purple. Meadow-sweet is a prominent yellow yet.

Nov. 6. Yesterday was a still and cloudy day. This is another rainy day. On the whole, we have had a good deal of fair weather the last three months. Mr. Buttrick, the marketman, says he has been to Boston twenty-seven times since the first of August, and has not got wet till to-day, though he rides in an open wagon.

I guessed at Goodwin's age on the 1st. He is hale and stout and looks younger than he is, and I took care to set him high enough. I guessed he was fifty-five, and he said that if he lived two or three months longer he would be fifty-six. He then guessed at my age, thought I was forty. He thought that Emerson was a very young-looking man for his age, "But," said he, "he has not been out o' nights as much as you have."

Some horse-chestnuts are still thickly leaved and yellow, not withered.

Nov. 7. P. M. — To Bateman's Pond.

It cleared up this forenoon. I leave my boat opposite the Hemlocks. I see the cold sunlight from some glade between the clouds falling on distant oak woods, now nearly bare, and as I glance up the hill between them,

seeing the bare but bright hillside beyond, I think, Now we are left to the hemlocks and pines with their silvery light, to the bare trees and withered grass. The very rocks and stones in the rocky roads (that beyond Farmer's) look white in the clear November light, especially after the rain. We are left to the chickadee's familiar notes, and the jay for trumpeter. What struck me was a certain emptiness beyond, between the hemlocks and the hill, in the cool, washed air, as if I appreciated even here the absence of insects from it. It suggested agreeably to me a mere space in which to walk briskly. The fields are bleak, and they are, as it were, vacated. The very earth is like a house shut up for the winter, and I go knocking about it in vain. But just then I heard a chickadee on a hemlock, and was inexpressibly cheered to find that an old acquaintance was yet stirring about the premises, and was, I was assured, to be there all winter. All that is evergreen in me revived at once.

The very moss, the little pine-tree moss, in Hosmer's meadow is revealed by its greenness amid the withered grass and stubble.

Hard frosts have turned the cranberry vines to a dark purple.

I hear one faint cricket's chirp this afternoon.

Going up the lane beyond Farmer's, I was surprised to see fly up from the white, stony road, two snow buntings, which alighted again close by, one on a large rock, the other on the stony ground. They had pale-brown or tawny touches on the white breast, on each side of the head, and on the top of the head, in the last place with some darker color. Had light-yellowish bills. They sat

quite motionless within two rods, and allowed me to approach within a rod, as if conscious that the white rocks, etc., concealed them. It seemed as if they were attracted to surfaces of the same color with themselves, — white and black (or quite dark) and tawny. One squatted *flat*, if not both. Their soft rippling notes as they went off reminded me [of] the northeast snow-storms to which ere long they are to be an accompaniment.

I find in a swamp witch-hazel buds still opening, for here they are sheltered, but I can find no fringed gentian, blue, near Bateman's Pond. But *Aster undulatus* and several golden rods, at least, may be found yet. I see *Lycopodium dendroideum*[1] which has not yet shed pollen. In and about Fox Castle Swamp, lambkill is reddened about as much as ever. Round-leaved cornel is bare.

The nuthatch is another bird of the fall which I hear these days and for a long time, — apparently ever since the young birds grew up.

The *Cornus florida* by the pond is quite bare; how long? (That at Island still thickly leaved.) So that I can only say that the sheltered *C. florida* change much later than the scarlet oak *generally*, and perhaps the former is to be considered later on the whole.

Methinks those scarlet oaks, those burning bushes, begin to be rare in the landscape. They are about Bateman's Pond, at any rate.

My apple harvest! It is to glean after the husbandman and the cows, or to gather the crop of those wild trees far away on the edges of swamps which have escaped their notice. Now, when it is generally all fallen,

[1] Var. *obscurum*.

if indeed any is left, though you would not suppose there were any on the first survey, nevertheless with experienced eyes I explore amid the clumps of alder (now bare) and in the crevices of the rocks full of leaves, and prying under the fallen and decaying ferns which, with apple and alder leaves, thickly strew the ground. From amid the leaves anywhere within the circumference of the tree, I draw forth the fruit, all wet and glossy, nibbled by rabbits and hollowed out by crickets, but still with the bloom on it and at least as ripe and well kept, if not better than those in barrels, while those which lay exposed are quite brown and rotten. Showing only a blooming cheek here and there between the wet leaves, or fallen into hollows long since and covered up with the leaves of the tree, — a proper kind of packing. I fill my pockets on each side, and as I retrace my steps, I eat one first from this side, and then from that, in order to preserve my balance. And here and there is one lodged as it fell between the bases of the suckers which spring thickly from a horizontal limb. In the midst of an alder clump, covered by leaves, there it lies, safe from cows which might smell it out and unobserved by the husbandman; reserved for me.[1]

It is too late, generally, to look for the handsome ones now. The exposed are decayed or decaying.

Looking southwest toward the pond just before sunset, I saw against the light what I took to be a shad-bush in full bloom, but without a leafet. I was prepared for this sight after this very warm autumn, because this tree frequently puts forth new leaves in October. Or it

[1] [*Excursions*, pp. 317, 318; Riv. 390, 391.]

might be a young wild apple. Hastening to it, I found it was only the feathery seeds of the virgin's-bower, whose vine, so close to the branches, was not noticeable. They looked just like dense umbels of white flowers, and in this light, three or four rods off, were fully as white as white apple blossoms. It is singular how one thing thus puts on the semblance of another. I thought at first I had made a discovery more interesting than the blossoming of apple trees in the fall. This, I thought, which I never saw nor heard of before, must be the result of that wonderfully warm weather about the 19th and 20th of October. It carried me round to spring again, when the shad-bush, almost leafless, is seen waving its white blossoms amid the yet bare trees. The feathery masses at intervals along the twigs, just like umbels of apple bloom, so caught and reflected the western light.

The *small* beeches are still covered with withered leaves, but the larger are three-quarters bare.

The *Diplopappus linariifolius*, which was yellow in the shade, in open and sunny places is purple.

I see the small botrychium leaf in Hosmer's meadow still firm, but a reddish brown or leather-color.

Rounding the Island just after sunset, I see not only the houses nearest the river but our own reflected in the river by the Island. From what various points of view and in what unsuspected lights and relations we sooner or later see the most familiar objects! I see houses reflected in the river which stand a mile from it, and whose inhabitants do not consider themselves near the shore.

I pass a musquash-house, apparently begun last night. The first mouthfuls of weeds were placed between some

small button-bush stems which stood amid the pads and pontederia, for a support and to prevent their being washed away. Opposite, I see some half concealed amid the bleached phalaris grass (a tall coarse grass), or, in some places, the blue-joint.

Nov. 8. P. M. — To Boulder Field.

Goodwin, laying wall at Miss Ripley's, observed to me going by, "Well, it seems that —— thought that he had lived long enough." He committed suicide within a week, at his sister's house in Sudbury. A boy slept in the chamber with him, and, hearing a noise, got [up] and found —— on the floor with both his jugular veins cut, but his windpipe whole. He said to the boy, "Take the razor and cut deeper," but the boy ran, and ——died, and Garfield said it was about time, for ——, in revenge for being sent to the house of correction, had set fire to a pile of wood of his, that long pile by the roadside beyond William Wheeler's, that I stood under in a rain once. —— probably burned Witherell's house too, and perhaps Boynton's stable.

The red osier at Mrs. Simmons's is quite bare; how long? Her hawthorn is still quite leafy and pretty, yellow-brown, dotted. A thorn at Hall's fence is dark scarlet and pretty. There are many leaves on the buckthorn still.

Common thorn bushes, long since bare, when many grow together in clumps, make another such a smoke, though smaller, as the maples, — the same color. I can often distinguish the bush by this. Alders are a very dark gray, sort of iron gray, and, if near enough, you see

dark lines (the stems) and specks (the fruit) like cinders, like a very dense, dark, and unconsumed uliginous smoke, in which many cinders rise.

Those trees and bushes which grow in dense masses and have many fine twigs, being bare, make an agreeable misty impression where there are a myriad retreating points to receive the eye, not a hard, abrupt wall; just as, in the sky, the visual ray is cushioned on clouds, unless it is launched into the illimitable ether. The eye is less worn and wearied, not to say wounded, by looking at these mazes where the seer is not often conscious of seeing anything. It is well that the eye is so rarely caught and detained by any object in one whole hemisphere of its range, *i. e.* the sky. It enjoys everlasting holiday on this side. Only the formless clouds and the objectless ether are presented to it. For they are nervous who see many faces in the clouds. Corresponding to the clouds in the sky are those mazes now on the earth. Nature disposes of her naked stems so softly as not to put our eyes out. She makes them a smoke, or stationary cloud, on this side or that, of whose objective existence we rarely take cognizance. She does not expect us to notice them. She calls our attention to the maple swamp more especially in October.

There is also the coarse maze produced by an oak wood (when nearly all the leaves are fallen), in which, however, the large boughs reflecting the light have considerable distinctness, and that of the forest in general. I thought, from a small specimen, that the brushy yellow birch tops were of the same hue with the alders.[1]

[1] *Vide* Nov. 11th.

Nature has many scenes to exhibit, and constantly draws a curtain over this part or that. She is constantly repainting the landscape and all surfaces, dressing up some scene for our entertainment. Lately we had a leafy wilderness, now bare twigs begin to prevail, and soon she will surprise us with a mantle of snow.[1] Some green she thinks so good for our eyes, like blue, that she never banishes it entirely, but has created evergreens.

It is remarkable how little any but a lichenist will observe on the bark of trees. The mass of men have but the vaguest and most indefinite notion of mosses, as a sort of shreds and fringes, and the world in which the lichenist dwells is much further from theirs than one side of this earth from the other. They see bark as if they saw it not. These objects which, though constantly visible, are rarely looked at are a sort of eye-brush.

Each phase of nature, while not invisible, is yet not too distinct and obtrusive. It is there to be found when we look for it, but not demanding our attention. It is like a silent but sympathizing companion in whose company we retain most of the advantages of solitude, with whom we can walk and talk, or be silent, naturally, without the necessity of talking in a strain foreign to the place.

I know of but one or two persons with whom I can afford to walk. With most the walk degenerates into a mere vigorous use of your legs, ludicrously purposeless, while you are discussing some mighty argument, each one having his say, spoiling each other's day, worrying one another with conversation, hustling one another

[1] I read that snow fell two or three inches deep in Bangor yesterday morning.

with our conversation. I know of no use in the walking part in this case, except that we may seem to be getting on together toward some goal; but of course we keep our original distance all the way. Jumping every wall and ditch with vigor in the vain hope of shaking your companion off. Trying to kill two birds with one stone, though they sit at opposite points of [the] compass, to see nature and do the honors to one who does not.

Animals generally see things in the vacant way I have described. They rarely see anything but their food, or some real or imaginary foe. I never saw but one cow looking into the sky.

Lichens as they affect the scenery, as picturesque objects described by Gilpin or others, are one thing; as they concern the lichenist, quite another.

These are the various grays and browns which give November its character. There are also some red mazes, like the twigs of the white maple and our *Cornus sericea*, etc. (the red osier, too, further north), and some distinct yellow ones, as willow twigs, which are most interesting in spring. The silvery abeles are steadily falling nowadays. The chalky white under side of these leaves is remarkable. None of our leaves is so white.

I think I admire again about this time the still bright-red or crimson fruit of the sumach, now when not only its own but most other leaves have fallen and there are few bright tints, it is now so distinct on its twigs. Your attention is not distracted by its brilliant leaves now.

I go across N. Barrett's land and over the road beyond his house. The aspect of the Great Meadows is now nearly uniform, the new and exposed grass being

nearly as brown and sere as that which was not cut. Thus Nature has been blending and harmonizing the colors here where man had interfered.

I wandered over bare fields where the cattle, lately turned out, roamed restless and unsatisfied with the feed; I dived into a rustling young oak wood where not a green leaf was to be seen; I climbed to the geological axis of elevation and clambered over curly-pated rocks whose strata are on their edges, amid the rising woods; and again I thought, They are all gone surely, and left me alone. Not even a man Friday remains. What nutriment can I extract from these bare twigs? Starvation stares me in the face. "*Nay, nay!*" said a nuthatch, making its way, head downward, about a bare hickory close by. "The nearer the bone the sweeter the meat. Only the superfluous has been swept away. Now we behold the naked truth. If at any time the weather is too bleak and cold for you, keep the sunny side of the trunk, for there is a wholesome and inspiring warmth such as the summer never afforded. There are the winter mornings, with the sun on the oak wood tops. While buds sleep, thoughts wake." ("Hear! hear!" screamed the jay from a neighboring copse, where I had heard a tittering for some time.) "Winter has a concentrated and nutty kernel if you know where to look for it." And then the speaker shifted to another tree, further off, and reiterated his assertions, and his mate at a distance confirmed them; and I heard a suppressed chuckle from a red squirrel that heard the last remark, but had kept silent and invisible all the while. Is that you? "Yes-sir-ee," said he. Then, running down a slanting

bough, he called out rather impudently, "Look here! just get a snug-fitting fur coat and a pair of fur gloves like mine, and you may laugh at a northeast storm," and then he wound up with a slang phrase, in his own lingo, accompanied by a flourish of his tail, just as a newsboy twirls his fingers with his thumb on his nose and inquires, "Does your mother know you are out?"

The wild pear tree on Ponkawtasset has some yellow leaves still. The now more noticeable green radical leaves of the buttercup in the russet pastures remind me of the early spring to come, of which they will offer the first evidence. Now, too, I can *see* (for the same reason) where grows our only patch of broom, a quarter of a mile off, it [is] such a distinct, somewhat yellowish, green. Already the creeping juniper is a ripe glaucous green, with a distinct ruddy tinge to the upper surface, — the whole bush a ripe tint like a fruit.

I stand in Ebby Hubbard's yellow birch swamp, admiring some gnarled and shaggy picturesque old birches there, which send out large knee-like limbs near the ground, while the brook, raised by the late rain, winds fuller than usual through the rocky swamp. I thought with regret how soon these trees, like the black birches that grew on the hill near by, would be all cut off, and there would be almost nothing of the old Concord left, and we should be reduced to read old deeds in order to be reminded of such things, — deeds, at least, in which some old and revered bound trees are mentioned. These will be the only proof at last that they ever existed. Pray, farmers, keep some old woods to match the old deeds. Keep them for history's sake, as specimens of

what the township was. Let us not be reduced to a mere paper evidence, to deeds kept in a chest or secretary, when not so much as the bark of the paper birch will be left for evidence, about its decayed stump.

The sides of the old Carlisle road where it is low and moist are (and have for a long time been), for many rods together and a rod in width, brown or cinnamon-colored with the withered dicksonia fern, not like the brown of trees (their withered leaves), but a peculiar cinnamon-brown. The bare huckleberry bushes and the sweet-ferns are draped with them as a kind of mourning.

Solidago puberula still out, for you see a few bright-yellow solidago flowers long after they are generally turned to a dirty-white fuzzy top. Pratt says he saw a few florets on a *Polygala sanguinea* within a week. He shows me samphire, plucked three weeks ago in Brighton, when it was a very brilliant crimson still.

Looking from Pratt's window at sunset, I saw that purple or rosy light reflected from some old chestnut rails on the hilltop before his house. Methinks it is pinkish, even like the old cow-droppings in the pastures. So universally does Nature blush at last. The very herbage which has gone through the stomachs and intestines of the cow acquires at last a faint pinkish tinge.

The button-bush balls are now blackish (really dark-brown) and withered, looking much blacker against the light than a month ago.

Nov. 9. It is remarkable that the only deciduous *trees* in the town which now make any show with their living leaves are: (1) scarlet oaks, perhaps only

one (2) *Populus tremuliformis*, one (3) dogwood, (the *small* white birch (*i. e.* young trees) spangles hardly deserved to be named), weeping willows, *Salix alba*, silvery abele, poplars (Italian), some apples, some horse-chestnuts, rarely wild pear trees, some English cherries (orange or yellow), — the first three alone being indigenous, to eight foreign.

And of shrubs, there are Jersey tea, gooseberry, two kinds of rose, *perhaps* sweet-fern, meadow-sweet, and high blackberry; also the lilac, quince, buckthorn, broom, privet, hawthorn, and barberry, well leaved. The very few leaves on sallows, *Viburnum nudum*, high blueberry, and perhaps *Cornus sericea*, do not deserve to be named, and hardly the five [*sic*] above. I have not seen the bayberry or beach plums. And add, *perhaps*, a few other shrubs. Sweet-briar pretty (?) well leaved. (Is it foreign?) Or of shrubs, seven foreign to about six native, and the last much the least noticeable and much the thinnest-leaved.

There are a very few living yellow leaves on young wild cherries yet, but these are not nearly so much to be named as the birch spangles.[1]

The newspaper tells me that Uncannunuc was white with snow for a short time on the morning of the 7th. Thus steadily but unobserved the winter steals down from the north, till from our highest hills we can discern its vanguard. Next week, perchance, our own hills will be white. Little did we think how near the winter was. It is as if a scout had brought in word that an enemy were approaching in force only a day's march

[1] Also leaves on green-briar, according to Nov. 11, 1855.

distant. Manchester was the spy this time, which has a camp at the base of that hill. We had not thought seriously of winter; we dwelt in fancied security yet.

P. M. — To Great Fields and Walden.

The scarlet oak by Agricultural Ground (and no doubt generally) is falling fast, and has been for some days, and they have now generally grown dull — before the leaves have lost their color. Other oaks may be said [to] have assumed their true November aspect; *i. e.*, the larger ones are about bare. Only the latest black oaks are leafy, and they just withered. The trees on the hill just north of Alcott's land, which I saw yesterday so distinctly from Ponkawtasset, and thought were either larches or aspens, prove to be larches. On a hill like this it seems they are later to change and brighter now than those in the Abel Heywood swamp, which are brownish-yellow. The first-named larches were quite as distinct amid the pines seen a mile off as near at hand.

Oak sprouts — white and black, at least — are a deeper and darker red than the trees. Here is a white oak sprout, for example, far brighter red than any tree of the kind I ever saw. I do not find that black oaks get to be quite scarlet or red at all, yet the very young and sprouts often are, and are hard to distinguish from the scarlet oak.

Garfield shot a hen-hawk just as I came up on the hillside in front of his house. He has killed three within two years about his house, and they have killed two hens for him. They will fly off with a hen. In this case the hen was merely knocked over. I was surprised to find that this bird had not a red tail, and guessed it must be

a young one. I brought it home and found that it was so, the same which Wilson called "*Falco leverianus*, American Buzzard or White-breasted Hawk," it differed so much from the old. There [was] little if any rufous brown about this bird. It had a white breast and prettily barred (with blackish or dark-brown) white tail-coverts;[1] was generally *dark*-brown with white spots above. He says that he killed the others also at this season, and that they were marked like this. They were all young birds, then, and hence so bold or inexperienced, perhaps. They take his hens from between the house and the barn. When the hawk comes, all the hens and roosters run for the barn.

I see catnep turned at top to a crimson purple.

As I stood upon Heywood's Peak, I observed in the very middle of the pond, which was smooth and reflected the sky there, what at first I took to be a sheet of very thin, dark ice two yards wide drifting there, the first ice of the season, which had formed by the shore in the morning, but immediately I considered that it was too early and warm for that. Then I wondered for a moment what dark film could be floating out there on the pure and unruffled lake. To be sure, it was not a very conspicuous object, and most would not have noticed it! But, suspecting what it was, I looked through my glass and could plainly see the dimples made by a school of little fishes continually coming to the surface there together. It was exactly analogous to the dark rippled patches on the sea made by the menhaden as seen from Cape Cod. Why have I never observed the

[1] *Vide* the 11th.

like in the river? In this respect, also, Walden is a small ocean.

We had a true November sunset after a dark, cloudy afternoon. The sun reached a clear stratum just before setting, beneath the dark cloud, though ready to enter another on the horizon's edge, and a cold, yellow sunlight suddenly illumined the withered grass of the fields around, near and far, eastward. Such a phenomenon as, when it occurs later, I call the afterglow of the year.

It is of no use to plow deeper than the soil is, unless you mean to follow up that mode of cultivation persistently, manuring highly and carting on muck at each plowing, — making a soil, in short. Yet many a man likes to tackle mighty themes, like immortality, but in his discourse he turns up nothing but yellow sand, under which what little fertile and available surface soil he may have is quite buried and lost. He should teach frugality rather, — how to postpone the fatal hour, — should plant a crop of beans. He might have raised enough of these to make a deacon of him, though never a preacher. Many a man runs his plow so deep in heavy or stony soil that it sticks fast in the furrow. It is a great art in the writer to improve from day to day just that soil and fertility which he has, to harvest that crop which his life yields, whatever it may be, not be straining as if to reach apples or oranges when he yields only ground-nuts. He should be digging, not soaring. Just as earnest as your life is, so deep is your soil. If strong and deep, you will sow wheat and raise bread of life in it.

Now the young hen-hawks, full-grown but inexperi-

enced, still white-breasted and brown (not red)-tailed, swoop down after the farmer's hens, between the barn and the house, often carrying one off in their clutches, and all the rest of the pack half fly, half run, to the barn. Unwarrantably bold, one ventures to stoop before the farmer's eyes. He clutches in haste his trusty gun, which hangs, ready loaded, on its pegs; he pursues warily to where the marauder sits teetering on a lofty pine, and when he is sailing scornfully away he meets his fate and comes fluttering head forward to earth. The exulting farmer hastes to secure his trophy. He treats the proud bird's body with indignity. He carries it home to show to his wife and children, for the hens were his wife's special care. He thinks it one of his best shots, full thirteen rods. This gun is "an *all-fired* good piece" — nothing but robin-shot. The body of the victim is delivered up to the children and the dog and, like the body of Hector, is dragged so many times round Troy.

But alas for the youthful hawk, the proud bird of prey, the tenant of the skies! We shall no more see his wave-like outline against a cloud, nor hear his scream from behind one. He saw but a pheasant in the field, the food which nature has provided for him, and stooped to seize it. This was his offense. He, the native of these skies, must make way for those bog-trotters from another land, which never soar. The eye that was conversant with sublimity, that looked down on earth from under its sharp projecting brow, is closed; the head that was never made dizzy by any height is brought low; the feet that were not made to walk on earth now lie useless along it. With those trailing claws for grapnels it

dragged the lower sky. Those wings which swept the sky must now dust the chimney-corner, perchance. So weaponed, with strong beak and talons, and wings, like a war-steamer, to carry them about. In vain were the brown-spotted eggs laid, in vain were ye cradled in the loftiest pine of the swamp. Where are your father and mother? Will they hear of your early death? before ye had acquired your full plumage, they who nursed and defended ye so faithfully?

Nov. 10. A pleasant day, especially the forenoon. Thermometer 46° at noon. Some would call it Indian summer, but it does not deserve to be called summer; grows cool in afternoon when I go —

To Baker Farm aspen *via* Cliffs.

Some very handsome *Solidago nemoralis* in bloom on Fair Haven Hill. (Look for these late flowers — November flowers — on hills, above frost.)

I think I may say that about the 5th the white, swamp white, and black, and perhaps red, oaks (the last *may* be later) were in their November condition, *i. e.* for the most part fallen. The few *large* black oak tops, still covered with leaves above the forest (*i. e.* just withered), are brownish-yellow.

The brilliancy of the scarlet oak being generally dulled, the season of brilliant leaves may be considered over, — say about the 10th; and now a new season begins, the pure November season of the russet earth and withered leaf and bare twigs and hoary withered goldenrods, etc.

From Fair Haven Hill, using my glass, I think that I

can see some of the snow of the 7th still left on the brow of Uncannunuc. It is a light line, lying close along under the edge of a wood which covers the summit, which has protected it. I can understand how much nearer they must feel to winter who live in plain sight of that than we do. I think that I could not have detected the edge of the forest if it had not been for the snow.

In the path below the Cliff, I see some blue-stemmed goldenrod turned yellow as well as purple. The Jersey tea is fallen, all but the terminal leaves. These, however, are the greenest and apparently least changed of any indigenous plant, unless it be the sweet-fern. Withered leaves generally, though they remain on the trees, are drooping. As I go through the hazel bushes toward the sun, I notice the silvery light reflected from the fine down on their tender twigs, this year's growth. This apparently protects them against the winter. The very armor that Nature puts on reminds you of the foe she would resist. This a November phenomenon, — the silvery light reflected from a myriad of downy surfaces.

A true November seat is amid the pretty white-plumed *Andropogon scoparius*, the withered culms of the purple wood grass which covers so many dry knolls. There is a large patch at the entrance to Pleasant Meadow. It springs from pink-brown clumps of radical leaves, which make good seats. Looking toward the sun, as I sit in the midst of it rising as high as my head, its countless silvery plumes are a very cheerful sight. At a distance they look like frost on the plant.

I look out westward across Fair Haven Pond. The warmer colors are now rare. A cool and silvery light is

the prevailing one; dark-blue or slate-colored clouds in the west, and the sun going down in them. All the light of November may be called an afterglow.

Hornbeam bare; how long? Perhaps with the ostrya and just after elms? There are still a few leaves on the large *Populus tremuliformis*, but they will be all gone in a day or two. They have turned quite yellow.

Hearing in the oak and near by a sound as if some one had broken a twig, I looked up and saw a jay pecking at an acorn. There were several jays busily gathering acorns on a scarlet oak. I could hear them break them off. They then flew to a suitable limb and, placing the acorn under one foot, hammered away at it busily, looking round from time to time to see if any foe was approaching, and soon reached the meat and nibbled at it, holding up their heads to swallow, while they held it very firmly with their claws. (Their hammering made a sound like the woodpecker's.) Nevertheless it sometimes dropped to the ground before they had done with it.

Aphides on alder.

Sap still flows in scarlet oak.

Returned by Spanish Brook Path. Notice the glaucous white bloom on the thimble-berry of late, as there are fewer things to notice. So many objects are white or light, preparing us for winter.

By the 10th of November we conclude with the scarlet oak dulled (and the colors of October generally faded), with a few golden spangles on the white birches and on a lingering *Populus tremuliformis* and a few sallows, a few green leaves on the Jersey tea, and a few

lingering scarlet or yellow or crimson ones on the flowering dogwood in a sheltered place, the gooseberry, the high blueberry, *Cornus sericea*, the late rose and the common smooth one, and the sweet-briar,[1] meadow-sweet, sweet-fern, and *Viburnum nudum*.[2] But they are very rare or uninteresting. To these may be added the introduced plants of November 9th, which are more leafy. Of them the silvery abele, English cherry, and broom have been of the most interesting colors.

Nov. 11. Goodwin brings me this forenoon a this year's loon, which he just killed on the river, — great northern diver, but a smaller specimen than Wilson describes and somewhat differently marked. It is twenty-seven inches long to end of feet by forty-four, and bill three and three-quarters to angle of mouth; above blackish-gray with small white spots (two at end of each feather).[3] Beneath, pure white, throat and all, except a dusky bar across the vent. Bill chiefly pale-bluish and dusky. You are struck by its broad, flat, sharp-edged legs, made to cut through the water rather than to walk with, set far back and naturally stretched out backward, its long and powerful bill, conspicuous white throat and breast. Dislodged by winter in the north, it is slowly travelling toward a warmer clime, diving in the cool river this morning, which is now full of light, the trees and bushes on the brink having long

[1] English?

[2] And green-briar, according to Nov. 7th and 11th, 1855; and perhaps a *few* other shrubs.

[3] [It must have been a red-throated loon.]

since lost their leaves, and the neighboring fields are white with frost. Yet this hardy bird is comfortable and contented there if the sportsman would let it alone.

P. M. — To Island and J. P. Brown's cold pond.

A cold day. Now seek sunny and sheltered places as in early spring, the south side the island, for example. Certain localities are thus distinguished. And they retain this peculiarity permanently, unless it depends on a wood which may be cut. Thousands of years hence this may still be the warmest and sunniest spot in the spring and fall.

I hear here a faint creaking of two or three crickets or locustæ, but it is a steady sound, — not the common cricket's, — long-continued, and when one pauses, generally another continues the strain, so that it seems absolutely continuous. They are either in the grass or on the bushes by the edge of the water, under this sunny wood-side. I afterward hear a few of the common cricket on the side of Clamshell. Thus they are confined now to the sun on the south sides of hills and woods. They are quite silent long before sunset.

Snow-fleas are skipping on the surface of the water at the edge, and spiders running about. These become prominent now.

The waters look cold and empty of fish and most other inhabitants now. Here, in the sun in the shelter of the wood, the smooth shallow water, with the stubble standing in it, is waiting for ice. Indeed, ice that formed last night must have recently melted in it. The sight of such water now reminds me of ice as much as of

water. No doubt many fishes have gone into winter quarters.[1]

The flowering dogwood, though still leafy, is uninteresting and partly withered.

Gossamer reflecting the light is another November phenomenon (as well as October). I see here, looking toward the sun, a very distinct silvery sheen from the cranberry vines, as from a thousand other November surfaces, though, looking down on them, they are dark-purple.

Speaking of twiggy mazes, the very stubble and fine pasture grasses unshorn are others reflecting the light, too, like twigs; but these are of a peculiar bleached brownish color, a principal ingredient in the russet of the earth's surface.[2]

Going by the willow-row above railroad, scare up a small duck, — perhaps teal, — and, in the withered grass at Nut Meadow Brook, two black ducks, which rise black between me and the sun, but, when they have circled round to the east, show some silvery sheen on the under side of their wings. Am surprised to see a little ice in this brook in the shade, as I push far up it through a dense field of withered blue-joint, — a spot white with frost, a few inches over. Saw a small pool in the woods also skimmed over, and many ice-crystals heaved up in low ground. Scare up a bird which at first ran in the grass, then flew, — a snipe. See only a very few small water-bugs in the brook, but no large ones nor skaters.

[1] *Vide* account of eels in *Tribune* for Nov. 9th.

[2] *Vide* Nov. 8th.

As a general rule, the leaves hold on longest on our indigenous trees and shrubs which were the first to leaf out, *e. g.* aspen, white birch, meadow-sweet, gooseberry, roses, sallows.

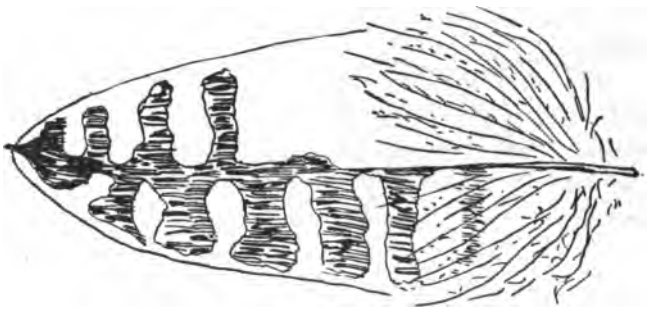
In the shade of the wood, on the hillside just west of the cold pond, am surprised to see the frost about the cistus not in the least melted. This, at least, is an evidence that cold weather is come. Looking closely at it, it reminds me by its form and position of the decodon bark half cracked open. It consists of four or five thin curled shavings of frost, so to speak horizontally grained, placed vertically and based on the stem, one within another, and curling toward the same side, forming a sort of fool's cap of different thicknesses, or cockles, or sugar-plums. It seems it is so cool that the frost about the cistus does not melt all day, in the shade. Coming home I have cold fingers, and must row to get warm.

In the meadows the pitcher-plants are bright-red.

This is the month of nuts and nutty thoughts, — that November whose name sounds so bleak and cheerless. Perhaps its harvest of thought is worth more than all the other crops of the year. Men are more serious now.

I find, in the wood-path this side that pond, thirteen kernels of corn close together, and five of them have the germ uncovered, the thin husk that was over them torn off. This might have been done accidentally by the

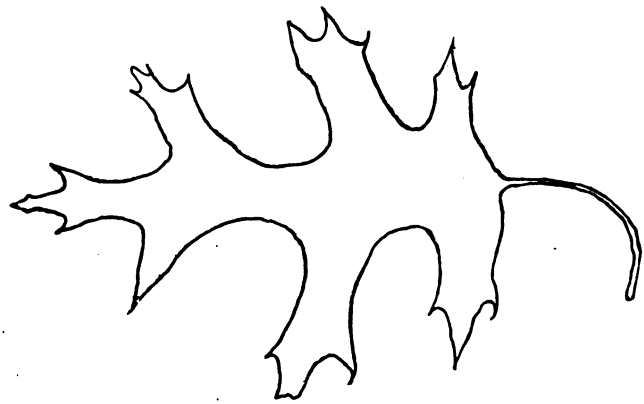
squirrel (?) in separating it from the ear or in transporting it. And this may be the origin of some accounts of their eating out the germ to prevent its sprouting. If they do eat it, perhaps it is because it is the softest (as it is) and perhaps the most savory part. These were at least a third of a mile from a corn-field.[1]



The tail-coverts of the young hen-hawk, *i. e.* this year's bird, at present are white, very handsomely barred or watered with dark brown in an irregular manner, somewhat as above, the bars on opposite sides of the midrib alternating in an agreeable manner. Such natural objects have suggested the "watered" figures or colors in the arts. Few mortals ever look down on the tail-coverts of a young hen-hawk, yet these are not only beautiful, but of a peculiar beauty, being differently marked and colored (to judge from Wilson's account of the old) from those of the old bird. Thus she finishes her works above men's sight.

[1] *Vide* fall of '59.

The scarlet oak leaf! What a graceful and pleasing outline! a combination of graceful curves and angles.



These deep bays in the leaf are agreeable to us as the thought of deep and smooth and secure havens to the mariner. But both your love of repose and your spirit of adventure are addressed, for both bays and headlands are represented, — sharp-pointed rocky capes and rounded bays with smooth strands. To the sailor's eye it is a much indented shore, and in his casual glance he thinks that if he doubles its sharp capes he will find a haven in its deep rounded bays. If I were a drawing-master, I would set my pupils to copying these leaves, that they might learn to draw firmly and gracefully. It is a shore to the aerial ocean, on which the windy surf beats. How different from the white oak leaf with its rounded headlands, on which no lighthouse need be placed![1]

[1] [*Excursions*, p. 280; Riv. 344.]

Some white oak leaves retain a smothered inward crimson fire long after they have fallen very pure and complete, more interesting to me than their fresher glow, because more indestructible, — an evening glow.

Nov. 12. I hear from Ricketson to-day that on the 10th the following trees, *which I had not seen lately*, were leafy and, as I infer, more or less unwithered. His words are, "Horse-chestnut quite full of yellow and green foliage. English walnut ditto.[1] Beech, linden (1), hawthorn (nearly perfect in green foliage, only a little decayed at the top, but in a sheltered place), silver linden, copper beech (2), elm (3), weeping ash,[2] *Euonymus Europæus* (4)."[3] Also "the guelder-rose"[4] and "*Bignonia radicans*[5] and *acuminata*" and "numerous shrubs in full leaf." Of those not European, "Osage orange (*Maclura*), *Cornus florida* (handsome), tulip, three-thorned acacia,[6] Mexican cypress."

He sent me specimens of those numbered above which were fresh, especially the fourth, and the third next, the second least so; but then what he sends for the American linden is greener than the European!! I find that E. Hoar observed the English elms with leaves or leafy still November 2d, near Salisbury.

It is much the coldest day yet, and the ground is a little frozen and resounds under my tread. All people move the brisker for the cold, yet are braced and a little

[1] Persian, according to Loudon.
[2] Variety of English *Fraxinus excelsior*, according to L.
[3] English, according to L.
[4] English.
[5] American.
[6] American.

elated by it. They love to say, "Cold day, sir." Though the days are shorter, you get more work out of a hired man than before, for he must work to keep warm.

P. M. — To Hill.

The riverside is skimmed over and presents a wintry aspect, — those great plaits, or folds, as it were, where the crystals have shot, wool-grass frozen in, and the thin white ice where the water has gone down.

Now for a brisk and energetic walk, with a will and a purpose. Have done with sauntering, in the idle sense. You must rush to the assault of winter. Make haste into the outskirts, climb the ramparts of the town, be on the alert and let nothing escape your observation. The army is all van.

The cold alone has brought down a good part of the remaining leaves of abeles and white willows. I see the handsome leaves of the last thickly strewn over the ice and reminding of grain even, half upside down. Pitch pine leaves are about all fallen.

The very common redness of the recent shoots, as white maples, huckleberries, etc., now that the twigs are bare, and on many sides masses of them are run together in a maze, adds to the general russet of nature. The black willow shoots are a very pale brownish yellow.

We are now reduced to browsing on buds and twigs, and methinks, with this diet and this cold, we shall look to the stall-fed thinkers like those unkempt cattle in meadows now, grazing the withered grass.

Examining closely the base of some frost-weed, I find in each case a little frost firmly attached to the naked woody stem just under the bark, having burst the last

for about an inch along the stem and elevated it. Perhaps this weed dies down slowly, since it blossoms a second time, and there is more sap now in the stem near its base than usual, which escapes in a vapor from the stem, and, being frozen, forms this kind of icicle.

I think that the change to some higher color in a leaf is an evidence that it has arrived at a late and more perfect and final maturity, answering to the maturity of fruits, and not to that of green leaves, etc., etc., which merely serve a purpose.[1] The word "ripe" is thought by some to be derived from the verb "to reap," according to which that is ripe which is ready to be reaped. The fall of the leaf is preceded by a ripe old age.

Nov. 13. 8.30 A. M. — To Hill.

I notice of late the darker green (livid?) of the arbor-vitæ and other evergreens, the effect of cold. So they are never so purely bright a green as immediately after their fall. They are not perfectly *ever*-green.

I hear go over, not far from the house, goldfinches, as I think, — their mewing note and ricochet flight, — I think not redpolls, for I hear no rattling notes. Also hear a robin's note.

Last night was quite cold, and the ground is white with frost. Thus gradually, but steadily, winter approaches. First there is the bleached grass, then the frost, then snow, the fields growing more and more hoary. There is frost not only on all the withered grass and stubble, but it is particularly thick and white and handsome around the throat of every hole and chink in

[1] [*Excursions*, p. 250; Riv. 306.]

the earth's surface, the congealed breath of the earth as it were, so that you would think at first it was the entry to some woodchuck's, or squirrel's, or mouse's, retreat. But it is the great dormant earth gone into winter quarters here, the earth letting off steam after the summer's work is over.

As I stand on the hill at 9 A. M., it looks like snow; the sky is overcast; smokes go up thickly from the village, answering to the frost in the chinks; and there is a remarkable stillness, as if it were earlier, the effect of the colder weather merely, as it were stiffening things. Leaves, twigs, birds (except the chickadee, and its feeble note seems to enhance the stillness), and insects are hushed. The few tinkling sounds — the chopping, or the like — are heard far and distinctly. It is like the calm before a hurricane or an earthquake, this stillness which precedes the winter's setting in.

Larches now look dark or brownish yellow.

Now, on the advent of much colder weather, the last *Populus tremuliformis* has lost its leaves, the sheltered dogwood is withered, and even the scarlet oak may be considered as extinguished, and the larch looks brown and nearly bare, and the few leaves left here and there on the indigenous shrubs named on the 9th are being rapidly killed by the same cause, and are falling.

Now for twinkling light reflected from unseen windows in the horizon in the early twilight.

One hickory at least (on the hill) has not lost its leaves yet, *i. e.*, has a good many left. So they are a month falling.

I see some feathers of a blue jay scattered along a

wood-path, and at length come to the body of the bird. What a neat and delicately ornamented creature, finer than any work of art in a lady's boudoir, with its soft light purplish-blue crest and its dark-blue or purplish secondaries (the narrow half) finely barred with dusky. It is the more glorious to live in Concord because the jay is so splendidly painted.[1]

A large flock of geese go over just before night.

After expecting snow all day, — though we did not know but it would prove rain, — we looked out the window at 9 P. M. and saw the ground for the most part white with the first sugaring, which at first we could hardly tell from a mild moonlight, — only there was no moon. Thus it comes stealthily in the night and changes the whole aspect of the earth.

Of course frozen ground, ice, and snow have now banished the few remaining skaters (if there were any?), crickets, and water-bugs.

It is wonderful what gradation and harmony there is in nature. The light reflected from bare twigs at this season — *i. e.*, since they began to be bare, in the latter part of October — is not only like that from gossamer, but like that which will ere long be reflected from the ice that will incrust them. So the bleached herbage of the fields is like frost, and frost like snow, and one prepares for the other.

Nov. 14. It is very cold and windy; thermometer 26. I walk to Walden and Andromeda Ponds. It is all at once perfect winter. I walk on frozen ground two-

[1] [Channing, p. 300.]

thirds covered with a sugaring of dry snow, and this strong and cutting northwest wind makes the oak leaves rustle dryly enough to set your heart on edge. A great many have fallen, even since the snow last evening. Take a citizen out into an oak sprout-land when there is a sugaring of dry snow and a cold, cutting northwest wind rustles the leaves. A sympathetic shiver will seize him. He will know of no fire to warm his wits by. He has no pleasing pursuit to follow through these difficulties, no traps to inspect, no chopping to do. Every resounding step on the frozen earth is a vain knocking at the door of what was lately genial Nature, his bountiful mother, now turned a stepmother. He is left outside to starve. The rustling leaves sound like the fierce breathing of wolves, — an endless pack, half famished, from the north, impelled by hunger to seize him. Of birds only the chickadees seem really at home. Where they are is a hearth and a bright fire constantly burning. The tree sparrows must be very lively to keep warm. The rest keep close to-day.

You will see where a mouse (or mole?) has run under the thinnest snow, like this. Such humble paths they prefer, perhaps to escape nocturnal foes.

Now I begin to notice the silver downy twigs of the sweet-fern in the sun (lately bare), the red or crimson twigs and buds of the high blueberry. The different colors of the water andromeda in different lights.

If he looks into the water, he gets no comfort there, for that is cold and empty, expecting ice.

Now, while the frosty air begins to nip your fingers and your nose, the frozen ground rapidly wears away

the soles of your shoes, as sandpaper might; the old she wolf is nibbling at your very extremities. The frozen ground eating away the soles of your shoes is only typical of the vulture that gnaws your heart this month.

Now all that moves migrates, or has migrated. Ducks are gone by. The citizen has sought the town. Probably the witch-hazel and many other flowers lingered till the 11th, when it was colder. The last leaves and flowers (?) may be said to fall about the middle of November.

Snow and cold drive the doves to your door, and so your thoughts make new alliances.

Nov. 15. P. M. — To Grackle Swamp.

A very fine snow falling, just enough to whiten the bare spots a little. I go to look for evergreen ferns before they are covered up.[1] The end of last month and the first part of this is the time. I do not know that I find more than one kind now in that swamp, and of that the fertile fronds are mostly decayed. All lie flat, ready to be buried in snow.

Slight as the snow is, you are now reminded occasionally in your walks that you have contemporaries, and perchance predecessors. I see the track of a fox which was returning from his visit to a farmyard last night, and, in the wood-path, of a man and a dog. The dog must have been a large one. I see their shadows before me. In another place, where the snow is so slight and lifted up on the withered grass that no track is left, I see by the cakes or balls of snow that have dropped from

[1] For ferns *vide* 17th.

his shoes that a man has passed. This would be known for a man and a dog's track in any part of the world. Five toes in a bundle, somewhat diamond-shape, forming a sort of rosette, are the print of the dog, whether on the sands of Africa or the snow of New England. The track of his master is somewhat more variable, yet reducible within certain limits.

The *Lycopodium dendroideum* var. *obscurum* appears to be just in bloom in the swamp about the Hemlocks (the regular one (not variety) is apparently earlier), — later than the *Lycopodium complanatum*, which is done there.

Gossamer, methinks, belongs to the latter part of October and first part of November; also the frost-weed and evergreen ferns. Buds and twigs (like gossamer), and the mazes made by twigs, and the silvery light on this down, and the silver-haired andropogon grass to the first half of November.

The water andromeda leaves have fallen, and the persistent turned that red brown; how long?

Nov. 16. P. M. — To Hubbard's Close.

A cold and blustering afternoon; sky for the most part overcast.

The *Cornus Canadensis* is called by Loudon "a deciduous herbaceous plant," the pyrolas "ever-green herbaceous plants." The bunchberry leaves are now little if any withered,[1] but generally drooping, the four hanging together as is the habit of the *sericea* and *florida*, the lambkill, etc. The plant dies down to its perennial

[1] I see, next day, that in exposed places they are.

root each year, and a fresh one shoots up in the spring. You can see its pink bud already strongly formed. But this year's plant is very slow to die, and I suspect many of the leaves remain green all winter under the snow. They are now generally purplish-tinged. Let me observe in what respect the pyrolas are more evergreen. The new bud is formed between the present two leaves, the old leaves, lower on the stem or vine, being mostly decayed.

There are many large limbs strewn about the woods, which were broken off by that strong southeast wind in peach time. These are now thickly leaved, the dead wood not being able to cast off the withered leaves; but the leaves having died thus prematurely are of a different color from that their companions changed to, — a peculiar yellow-brown (*i. e.* chestnuts and oaks) with more or less green in it.

I see a gray squirrel, eight or ten rods off in Hubbard's large wood, scamper over the leaves and run up an oak. From the oak it crosses ascending into a tall white pine top, and there lies concealed, and I can see no more of him.

The earth half covered with this slight snow, merely grayed with [it], is the more like the bare gray limbs of oak woods now, and such woods and the earth make the more uniform impression.

Methinks the wintergreen, pipsissewa, is our handsomest evergreen, so liquid glossy green and dispersed almost all over the woods. The mountain laurel, the *Lycopodium dendroideum*, *complanatum*, and *lucidulum*, and the terminal shield fern are also very interesting.

Preaching? Lecturing? Who are ye that ask for these things? What do ye want to hear, ye puling infants? A trumpet-sound that would train you up to mankind, or a nurse's lullaby? The preachers and lecturers deal with men of straw, as they are men of straw themselves. Why, a free-spoken man, of sound lungs, cannot draw a long breath without causing your rotten institutions to come toppling down by the vacuum he makes. Your church is a baby-house made of blocks, and so of the state. It would be a relief to breathe one's self occasionally among men. If there were any magnanimity in us, any grandeur of soul, anything but sects and parties undertaking to patronize God and keep the mind within bounds, how often we might encourage and provoke one another by a free expression! I will not consent to walk with my mouth muzzled, not till I am rabid, until there is danger that I shall bite the unoffending and that my bite will produce hydrophobia.

Freedom of speech! It hath not entered into your hearts to conceive what those words mean. It is not leave given me by your sect to say this or that; it is when leave is given to your sect to withdraw. The church, the state, the school, the magazine, think they are liberal and free! It is the freedom of a prison-yard. I ask only that one fourth part of my honest thoughts be spoken aloud. What is it you tolerate, you church to-day? Not truth, but a lifelong hypocrisy. Let us have institutions framed not out of our rottenness, but out of our soundness. This factitious piety is like stale gingerbread. I would like to suggest what a pack of fools and cowards we mankind are. They want me to agree not to breathe

too hard in the neighborhood of their paper castles. If I should draw a long breath in the neighborhood of these institutions, their weak and flabby sides would fall out, for my own inspiration would exhaust the air about them. The church! it is eminently the timid institution, and the heads and pillars of it are constitutionally and by principle the greatest cowards in the community. The voice that goes up from the monthly concerts is not so brave and so cheering as that which rises from the frog-ponds of the land. The best "preachers," so called, are an effeminate class; their bravest thoughts wear petticoats. If they have any manhood they are sure to forsake the ministry, though they were to turn their attention to baseball. Look at your editors of popular magazines. I have dealt with two or three the most liberal of them. They are afraid to print a whole sentence, a *round* sentence, a free-spoken sentence. They want to get thirty thousand subscribers, and they will do anything to get them. They consult the D.D.'s and all the letters of the alphabet before printing a sentence.[1] I have been into many of these cowardly New England towns where they *profess* Christianity, — invited to speak, perchance, — where they were trembling in their shoes at the thought of the things you might say, as if they knew their weak side, — that they were weak on all sides. The devil they have covenanted with is a timid devil. If they would let their sores alone they might heal, and they could to the wars again like men; but instead of that they get together in meeting-house cellars, rip off the bandages and poultice them with sermons.

[1] [See *Cape Cod, and Miscellanies*, p. 469; *Misc.*, Riv. 271.]

One of our New England towns is sealed up hermetically like a molasses-hogshead, — such is its sweet Christianity, — only a little of the sweet trickling out at the cracks enough to daub you. The few more liberal-minded or indifferent inhabitants are the flies that buzz about it. It is Christianity bunged up. I see awful eyes looking out through a bull's-eye at the bunghole. It is doubtful if they can fellowship with me.

The further you go up country, I think the worse it is, the more benighted they are. On the one side you will find a barroom which holds the "Scoffers," so called, on the other a vestry where is a monthly concert of prayer. There is just as little to cheer you in one of these companies as the other. It may be often the truth and righteousness of the barroom that saves the town. There is nothing to redeem the bigotry and moral cowardice of New-Englanders in my eyes. You may find a cape which runs six miles into the sea that has not a man of moral courage upon it. What is called faith is an immense prejudice. Like the Hindoos and Russians [?] and Sandwich-Islanders (that were), they are the creatures of an institution. They do not think; they adhere like oysters to what their fathers and grandfathers adhered to. How often is it that the shoemaker, by thinking over his last, can think as valuable a thought as he makes a valuable shoe?

I have been into the town, being invited to speak to the inhabitants, not valuing, not having read even, the Assembly's Catechism, and I try to stimulate them by reporting the best of my experience. I see the craven priest looking round for a hole to escape at, alarmed

because it was he that invited me thither, and an awful silence pervades the audience. They think they will never get me there again. But the seed has not all fallen in stony and shallow ground.

The following are our shrubby evergreen plants (not including *Coniferæ*):[1] —

Mitchella repens
Linnæa
Andromeda Polifolia
Cassandra calyculata
Mayflower
Checkerberry
Mountain laurel
Lambkill
Kalmia glauca
Labrador tea
Common cranberry
European cranberry

To which I will add the herbaceous: —

Chimaphila umbellata
maculata

N. B. — *Rubus hispidus* leaves last through the winter, turning reddish.[2]

It is no compliment to be invited to lecture before the rich Institutes and Lyceums. The settled lecturers are as tame as the settled ministers. The audiences do not want to hear any prophets; they do not wish to be stimulated and instructed, but entertained. They, their wives and daughters, go to the Lyceum to suck a sugar-plum. The little of medicine they get is disguised with

[1] Genista is *not* evergreen. *Vide Mar.* 6, 1859.
[2] Gold-thread. *Vide* 25th.

sugar. It is never the reformer they hear there, but a faint and timid echo of him only. They seek a pass-time merely. Their greatest guns and sons of thunder are only wooden guns and great-grandsons of thunder, who give them smooth words well pronounced from manuscripts well punctuated, — they who have stolen the little fire they have from prophets whom the audience would quake to hear. They ask for orators that will entertain them and leave them where they found them. The most successful lecturing on Washington, or what-not, is an awful scratching of backs to the tune, it may be, of fifty thousand dollars. Sluggards that want to have a lullaby sung to them! Such manikins as I have described are they, alas, who have made the greatest stir (and what a shallow stir) in the church and Lyceum, and in Congress. They want a medicine that will not interfere with their daily meals.

There is the Lowell Institute with its restrictions, requiring a certain faith in the lecturers. How can any free-thinking man accept its terms? It is as if you were to resolve that you would not eat oysters that were not of a particular faith, — that, for instance, did not believe the Thirty-Nine Articles, — for the faith that is in an oyster is just as valuable as the faith referred to in Mr. Lowell's will. These popular lecturers, our preachers, and magazines are for women and children *in the bad sense.*

The curators have on their lists the names of the men who came before the Philomathean Institute in the next large town and did no harm; left things *in statu quo*, so that all slept the better for it; only confirmed the audience in their previous badness; spoke a good word for

God; gave the clergy, that heavy set, a lift; told the youngsters to be good boys. A man may have a good deal to say who has not any desk to thump on, who does not thunder in bad air.

They want all of a man but his truth and independence and manhood.

One who spoke to their condition would of course make them wince, and they would retaliate, *i. e.* kick him out, or stop their ears.

The cold weather which began on the 12th, with the snow of the 13th and since, suddenly killed the few remaining living leaves, without any exceptions to speak of. Most foreign plants at once dropped their leaves, though pretty thick before, but there are many still on the privet. The sweet-fern in some places has still many green, more than any indigenous shrub or tree, though far the greater part of them (the sweet-ferns) are bare or withered. Probably the larch about fallen.

Nov. 17. The ground has remained frozen since the morning of the 12th.

P. M. — Up Assabet.

The polypody on the rock is much shrivelled by the late cold. The edges are curled up, and it is not nearly so fair as it was ten days ago. I see a small botrychium in the swampy wood west of river, opposite Emerson's field, quite fresh, not at all injured.

The musquash are more active since the cold weather. I see more of them about the river now, swimming back and forth across the river, and diving in the middle, where I lose them. They dive off the round-backed,

black mossy stones, which, when small and slightly exposed, look much like themselves. In swimming show commonly three parts with water between. One sitting in the sun, as if for warmth, on the opposite shore to me looks quite reddish brown. They avail themselves of the edge of the ice now found along the sides of the river to feed on.

Much *Lycopodium complanatum* did not shed pollen on the 3d, and the *Lycopodium dendroideum* var. *obscurum* sheds it only within a very few days[1] (was apparently in its prime yesterday). So it would seem that *these* lycopodiums, at least, which have their habitat on the forest floor and but lately attracted my attention there (since the withered leaves fell around them and revealed them by the contrast of their color and they emerged from obscurity), — it would seem that they at the same time attained to their prime, their flowering season. It was coincident with this prominence.[2]

Leaving my boat, I walk through the low wood west of Dove Rock, toward the scarlet oak. The very sunlight on the pale-brown bleached fields is an interesting object these cold days. I naturally look toward [it] as to a wood-fire. Not only different objects are presented to our attention at different seasons of the year, but we are in a frame of body and of mind to appreciate different objects at different seasons. I see one thing when it is cold and another when it is warm.

Looking toward the sun now when an hour high, there being many small alders and birches between me and it for half a dozen rods, the light reflected from their

[1] Nov. 2, 1853. [2] *Vide* 30th.

twigs has the appearance of an immense cobweb with closely concentric lines, of which I see about one fourth, on account of the upward curve of the twigs on each side, and the light not being reflected to me at all from one side of the trees directly in front of me. The light is thus very pleasantly diffused.

We are interested at this season by the manifold ways in which the light is reflected to us. Ascending a little knoll covered with sweet-fern, shortly after, the sun appearing but a point above the sweet-fern, its light was reflected from a dense mass of the bare downy twigs of this plant in a surprising manner which would not be believed if described. It was quite like the sunlight reflected from grass and weeds covered with hoar frost. Yet in an ordinary light these are but dark or dusky looking twigs with scarcely a noticeable downiness. Yet as I saw it, there was a perfect halo of light resting on the knoll as I moved to right or left. A myriad of surfaces are now prepared to reflect the light. This is one of the hundred silvery lights of November. The setting sun, too, is reflected from windows more brightly than at any other season. "November Lights" would be a theme for me.

I am surprised to see a stake-driver fly up from the weeds within a stone's throw of my boat's place. It drops its excrement from thirty feet in the air, and this falling, one part being heavier than another, takes the form of a snake, and suggests that this may be the origin of some of the stories of this bird swallowing a snake or eel which passed through it.

Nature is moderate and loves degrees. Winter is not all

white and sere. Some trees are evergreen to cheer us, and on the forest floor our eyes do not fall on sere brown leaves alone, but some evergreen shrubs are placed there to relieve the eye. Mountain laurel, lambkill, checkerberry, wintergreen, etc., etc., etc., and a few evergreen ferns scattered about keep up the semblance of summer still.

As for the evergreen ferns, I see now —

Common polypody (though shrivelled by cold where exposed).
Asplenium trichomanes.
A. ebeneum.
Aspidium spinulosum (?), large frond, small-fruited, in swamp southeast Brister's Spring, on 16th.
A. cristatum (?), Grackle Swamp on the 15th, with oftener what I take to be the narrower and more open sterile frond.
A. marginale (common).
A. achrostichoides (terminal shield).

The first one and the last two are particularly handsome, the last especially, it has so thick a frond.

Nov. 18. P. M. — To Conantum.

Notice the short bright-yellow willow twigs on Hubbard's Causeway. They are prominent now, first, because they are bare; second, because high-colored always and [because of] this rarity of bright colors at present; third, because of the clear air and November light. For the same reason I notice nowadays the red twigs of the silky cornel by the river. The black willow twigs are tawny in the mass, almost cinnamon.

The fruitless enterprise of some persons who rush helter-skelter, carrying out their crazy scheme, — merely "putting it through," as they phrase it, — reminds me

of those thistle-downs which, not being detained nor steadied by any seed at the base, are blown away at the first impulse and go rolling over all obstacles. They may indeed go fastest and farthest, but where they rest at last not even a thistle springs. I meet these useless barren thistle-downs driving over the fields. They remind me of busy merchants and brokers on 'change doing business on credit, gambling with fancy stocks, that have failed over and over again, assisted to get a-going again to no purpose, — a great ado about nothing, — all in my eye, — with nothing to deposit, not of the slightest use to the great thistle tribe, not even tempting a jackass. When you right or extricate one of these fellows and set him before the wind again, it is worth the while to look and see if he has any seed of success under him. Such a one you may know afar — he floats more slowly and steadily — and of his enterprise expect results.

Am surprised to see Fair Haven Pond completely frozen over during the last four days. It will probably open again. Thus, while all the channel elsewhere is open and a mere edging of ice amid the weeds is seen, this great expansion is completely bridged over, thus early.

Some mocker-nuts, and I think some hickories, on Conantum are not yet bare. Their withered leaves hold on almost like the oaks. Now is the time to gather the mocker-nuts.

I go along under the east side of Lee's Cliff, looking at the evergreen ferns. The marginal fern is the commonest. How pretty the smallest asplenium sometimes, in

a recess under a shelving rock, as it were pinned on rosettewise, as if it were the head of a breastpin.

I look south from the Cliff. The westering sun just out of sight behind the hill. Its rays from those bare twigs across the pond are bread and cheese to me. So many oak leaves have fallen that the white birch stems are more distinct amid the young oaks; I see to the bone. See those brave birches prepared to stand the winter through on the hillsides. They never sing, "What 's this dull town to me?" The maples skirting the meadows (in dense phalanxes) look like light infantry advanced for a swamp fight. Ah, dear *Novem*ber, ye must be sacred to the *Nine* surely.[1]

The early willow catkins already peep out a quarter of an inch. Early crowfoot is reddened at Lee's.

Nov. 19. P. M. — Mocker-nutting, to Conantum.

The lambkill and water andromeda are turned quite dark red where much exposed; in shelter are green yet.

Those long mocker-nuts appear not to have got well ripe this year. They do not shed their husks, and the meat is mostly skinny and soft and flabby. Perhaps the season has been too cold. I shook the trees. It is just the time to get them. How hard they rattle down, like stones! There is a harmony between this stony fruit and these hard, tough limbs which bear it. I was surprised to see how much the hickory-tops had been bent and split, apparently by ice, tough as they are. They seem to have suffered more than evergreens do. The husks of one tree scarcely gaped open at all, and could

[1] [Channing, p. 107.]

not be removed. I did not think at first why these nuts had not been gathered, but I suspect it may be because Puffer, who probably used to get them, has committed suicide.

Nov. 20. P. M. — To Ministerial Swamp.

I have seen more gray squirrels of late (as well as musquash); I think not merely because the trees are bare but because they are stirring about more, — nutting, etc.

Martial Miles tells me of a snapping turtle caught in the river at Waltham, about October 1st, he thinks, which weighed fifty-five pounds (?). He saw it. There were two fighting.

He says that a marsh hawk had his nest in his meadow several years, and though he shot the female three times, the male with but little delay returned with a new mate. He often watched these birds, and saw that the female could tell when the male was coming a long way off. He thought that he fed her and the young all together (?). She would utter a scream when she perceived him, and, rising into the air (before or after the scream?), she turned over with her talons uppermost, while he passed some three rods above, and caught without fail the prey which he let drop, and then carried it to her young. He had seen her do this many times, and always without failing.

The common milkweed (*Asclepias Cornuti*) and some thistles still discounting.

I go across the great Tony Wheeler pasture. It is a cool but pleasant November afternoon. The glory of

November is in its silvery, sparkling lights. I think it is peculiar among the months for the amount [of] sparkling white light reflected from a myriad of surfaces. The air is so clear, and there are so many bare, polished, bleached or hoary surfaces to reflect the light. Few things are more exhilarating, if it is only moderately cold, than to walk over bare pastures and see the abundant sheeny light like a universal halo, reflected from the russet and bleached earth. The earth shines perhaps more than in spring, for the reflecting surfaces are less dimmed now. It is not a red but a white light. In the woods and about swamps, as Ministerial, also, there are several kinds of twigs, this year's shoots of shrubs, which have a slight down or hairiness, hardly perceptible in ordinary lights though held in the hand, but which, seen toward the sun, reflect a cheering silvery light. Such are not only the sweet-fern, but the hazel in a less degree, alder twigs, and even the short huckleberry twigs, also lespedeza stems. It is as if they were covered with a myriad fine spiculæ which reflect a dazzling white light, exceedingly warming to the spirits and imagination. This gives a character of snug warmth and cheerfulness to the swamp, as if it were a place where the sun consorted with rabbits and partridges. Each individual hair on every such shoot above the swamp is bathed in glowing sunlight and is directly conversant with the day god.

The cinnamon-brown of withered pinweeds (how long?) colors whole fields. It may be put with the now paler brown of hardhack heads and the now darker brown of the dicksonia fern by walls.

I notice this afternoon that the pasture white oaks have commonly a few leaves left on the lower limbs and also next the trunk.

Winter-rye is another conspicuous green amid the withered grass fields.

The rubuses are particularly hardy to retain their leaves. Not only low blackberry and high blackberry leaves linger still fresh, but the *Rubus hispidus* leaves last all winter like an evergreen. The great round-leaved pyrola, dwarf cornel, checkerberry, and lambkill have a lake or purplish tinge on the under side at present, and these last two are red or purplish above. It is singular that a blush should suffuse the under side of the thick-leaved pyrola while it is still quite green above.

When walnut husks have fairly opened, showing the white shells within, — the trees being either quite bare or with a few withered leaves at present, — a slight jar with the foot on the limbs causes them to rattle down in a perfect shower, and on bare, grass-grown pasture ground it is very easy picking them up.

As I returned over Conantum summit yesterday, just before sunset, and was admiring the various rich browns of the shrub oak plain across the river, which seemed to me more wholesome and remarkable, as more permanent, than their late brilliant colors, I was surprised to see a broad halo travelling with me and always opposite the sun to me, at least a quarter of a mile off and some three rods wide, on the shrub oaks.

The rare wholesome and permanent beauty of withered oak leaves of various hues of brown mottling a hillside, especially seen when the sun is low, — Quaker

colors, sober ornaments, beauty that quite satisfies the eye. The richness and variety are the same as before, the colors different, more incorruptible and lasting.[1]

Sprague of Cohasset states to the Natural History Society, September 1st, '58, that the light under the tail of the common glow-worm "remained for 15 minutes after death."

Who are bad neighbors? They who suffer their neighbors' cattle to go at large because they don't want their ill will,— are afraid to anger them. They are abettors of the ill-doers.

Who are the religious? They who do not differ much from mankind generally, except that they are more conservative and timid and useless, but who in their conversation and correspondence talk about kindness of Heavenly Father. Instead of going bravely about their business, trusting God ever, they do like him who says "Good sir" to the one he fears, or whistles to the dog that is rushing at him.[2] And because they take His name in vain so often they presume that they are better than you. Oh, their religion is a rotten squash.

Nov. 21. P. M. — To Hubbard's place.

See small water-bugs in Nut Meadow Brook in one place. Probably they were not to be found in the late cold weather, 12th, 13th, etc.

See from Clamshell apparently two little dippers, one up-stream, the other down, swimming and diving in the perfectly smooth river this still, overcast day.

Probably the bulk of the scarlet oak leaves are fallen.

[1] *Vide* four pages forward. [2] [Channing, p. 89.]

I find very handsome ones strewn over the floor of Potter's maple swamp. They are brown above, but still purple beneath. These are so deeply cut and the middle and lobes of the leaf so narrow that they look like the remnant of leafy stuff out of which leaves have been cut, or like scrap-tin. The lobes are remarkably sharp-pointed and armed with long bristles. Yes, they lie one above another like masses of scrap-tin.[1]

Nov. 22. In surveying Mr. Bigelow's wood-lot today I found at the northeasterly angle what in the deed from the Thayers in '38 was called "an old stump by the wall." It is still quite plain and may last twenty years longer. It is oak.

This is quite a pleasant day, but hardly amounting to Indian summer. I see swarms of large mosquito-like insects dancing in the garden. They may be a large kind of *Tipulidæ*. Had slender ringed abdomens and no plumes. The river is quite low, — about as low as it has been, for it has not been very low.

About the first of November a wild pig from the West, said to weigh three hundred pounds, jumped out of a car at the depot and made for the woods. The owner had to give up the chase at once, not to lose his passage, while some railroad employees pursued the pig even into the woods a mile and a half off, but there the pig turned and pursued them so resolutely that they ran for their lives and one climbed a tree. The next day being Sunday, they turned out in force with a gun and a large mastiff, but still the pig had the best of it, — fairly

[1] [*Excursions*, p. 279; Riv. 342.]

frightened the men by his fierce charges, — and the dog was so wearied and injured by the pig that the men were obliged to carry him in their arms. The pig stood it better than the dog. Ran between the gun man's legs, threw him over, and hurt his shoulder, though pierced in many places by a pitchfork. At the last accounts, he had been driven or baited into a barn in Lincoln, but no one durst enter, and they were preparing to shoot him. Such pork might be called venison.[1]

Nov. 23. A northeasterly storm, with occasional sugarings of snow.

Nov. 24. P. M. — To Cliffs and Walden.

There is a slight sugaring of snow on the ground. On grass ground there is much the less, and that is barely perceptible, while plowed ground is quite white, and I can thus distinguish such fields even to the horizon. It is dark, drizzling still from time to time, sprinkling or snowing a little. I see more snow in the north and northwest horizon. I can not only distinguish plowed fields — regular white squares in the midst of russet — but even cart-paths, and foot or cow paths a quarter of a mile long, as I look across to Conantum. It is pleasant to see thus revealed as a feature, even in the distant landscape, a cow-path leading from far inland down to the river.

The young oaks on the plain under the Cliffs are of a more uniform color than a fortnight ago, — a reddish brown.

Fair Haven Pond is closed still.

[1] Caught him at last in a snare, and so conveyed him to Brighton.

It is a lichen day, with a little moist snow falling. The great green lungwort lichen shows now on the oaks, — strange that there should be none on the pines close by, — and the fresh bright chestnut fruit of other kinds, glistening with moisture, brings life and immortality to light.[1] That side of the trunk on which the lichens are thickest is the side on which the snow lodges in long ridges.

When I looked out this morning, the landscape presented a very pretty wintry sight, little snow as there was. Being very moist, it had lodged on every twig, and every one had its counterpart in a light downy white one, twice or thrice its own depth, resting on it.

I hear a screech owl in Wheeler's wood by the railroad, and I heard one a few evenings ago at home.

Saw a scarlet oak some sixteen inches in diameter at three feet from ground blown down evidently in that southeast wind some months ago. It stood on the southerly edge of Wheeler's wood, and had fallen north-northwest, breaking off a white oak nine inches in diameter and a small white pine in its fall. It was a perfectly sound oak. I was surprised to see how little root it had. Very few roots reached deeper than two feet, — the thickness of the crust of earth turned up by its fall, — and those that did were not bigger than one's finger; and there was not a root bigger than your finger at four feet from the centre on any side of the more than semicircle exposed. No wonder it was uprooted!

Here is an author who contrasts love for "the beauties of the person" with that for "excellences of the mind,"

[1] [Channing, pp. 111, 112.]

as if these were the alternatives. I must say that it is for neither of these that I should feel the strongest affection. I love that one with whom I sympathize, be she "beautiful" or otherwise, of excellent mind or not.

Nov. 25. P. M. — To Ministerial Swamp.

I go through the Dennis Swamp by railroad. See a few high blueberry buds which have fairly started, expanded into small red leaves, apparently within a few weeks.[1]

The *Rubus hispidus* is now very common and conspicuous amid the withered grass and leaves of the swamp, with its green or reddened leaves; also the gold-thread. The prinos berries on their light-brown twigs are quite abundant and handsome.

While most keep close to their parlor fires this cold and blustering Thanksgiving afternoon, and think with compassion of those who are abroad, I find the sunny south side of this swamp as warm as their parlors, and warmer to my spirit. Aye, there is a serenity and warmth here which the parlor does not suggest, enhanced by the sound of the wind roaring on the northwest side of the swamp a dozen or so rods off. What a wholesome and inspiring warmth is this! I see aspen (*tremuliformis*) leaves, which have long since fallen, turned black, which also shows the relation of this tree to the willow, many species of which also turn black.

Pass Tarbell's behind. The farmer, now on the

[1] *Vide* Oct. 13, 1859.

down-hill of life, at length gets his new barn and barn-cellar built, far away in some unfrequented vale. This for twoscore years he has struggled for. This is his poem done at last, — to get the means to dig that cavity and rear those timbers aloft. How many millions have done just like him! — or failed to do it! There is so little originality, and just so little, and just as much, fate, so to call it, in literature. With steady struggle, with alternate failure and success, he at length gets a barn-cellar completed, and then a tomb. You would say that there was a tariff on thinking and originality.

I pass through the Ministerial Swamp and ascend the steep hill on the south cut off last winter. In the barren poplar hollow just north of the old mountain cranberry is another, the largest, patch of it (*i. e.* bear-berry) that I remember in Concord. How often I see these aspens standing dead in barren, perhaps frosty, valleys in the woods!

Most shrub oaks there have lost their leaves (*Quercus ilicifolia*), which, very fair and perfect, cover the ground.

You are surprised, late these afternoons, a half an hour perhaps before sunset, after walking in the shade or on looking round from a height, to see the singularly bright yellow light of the sun reflected from pines, especially pitch pines, or the withered oak leaves, through the clear, cold air, the wind, it may be, blowing strong from the northwest. Sunlight in summer falling on green woods is not, methinks, such a noticeable phenomenon. I stand on that high hill south of the swamp cut off by C. (?) Wheeler last winter, and when I look

round northeast I am greatly surprised by the very brilliant sunlight of which I speak, surpassing the glare of any noontide, it seems to me.

Nov. 26. The various evergreens, large and small, may be said generally to turn green or to have turned reddish about the middle of November. Got in boat on account of Reynolds's new fence going up (earlier than usual). A good many leaves of the sweet-fern, though withered now, still hold on; so that this shrub may be put with the oaks in this respect. So far as I remember, it is peculiar among shrubs in this.

Walden is very low, compared with itself for some years. The bar between pond and Hubbard's pond-hole is four feet wide, but the main bar is not *bare.* There is a shore at least six feet wide inside the alders at my old shore, and what is remarkable, I find that not only Goose Pond also has fallen correspondingly within a month, but even the smaller pond-holes only four or five rods over, such as Little Goose Pond, shallow as they are. I begin to suspect, therefore, that this rise and fall extending through a long series of years is not peculiar to the Walden system of ponds, but is true of ponds generally, and perhaps of rivers, though in their case it may be more difficult to detect. Even around Little Goose Pond the shore is laid bare for a space even wider than at Walden, it being less abrupt. The Pout's Nest, also, has lost ten feet on all sides.

Those pouts' nests which I discovered in the spring are high and dry six feet from the water. I overhauled one, ripping up the frozen roof with my hands. The

roof was only three inches thick, then a cavity and a bottom of wet mud. In this mud I found two small frogs, one apparently a *Rana palustris* less than an inch long, the other apparently a young *R. pipiens* an inch and a half long. They were quite sluggish and had evidently gone into winter quarters there, but probably some mink would have got them.

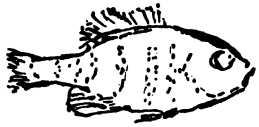
The Pout's Nest was frozen just enough to bear, with two or three breathing-places left. The principal of these was a narrow opening about a rod long by eighteen inches wide within six feet of the southwest side of the pond-hole, and the immediately adjacent ice was darker and thinner than the rest, having formed quite recently. I observed that the water at this breathing-chink was all alive with pollywogs, mostly of large size, though some were small, which apparently had collected there chiefly, as the water-surface was steadily contracted, for the sake of the air (?). There [were] more than a hundred of them there, or ten or a dozen in a square foot, and many more under the ice. I saw one firmly frozen in and dead. One had legs, and his tail was half eaten off by some creature, yet he was alive. There were also one or two frogs stirring among them. Here was evidently warmer water, probably a spring, and they had crowded to it. Looking more attentively, I detected also a great many minnows about one inch long either floating dead there or frozen into the ice, — at least fifty of them. They were shaped like bream, but had the transverse bars of perch. There were more pollywogs in other parts of the pond-hole, and at the north end I saw two perch about seven inches long, dead, close to the shore,

and turned a *bright green*,— which are commonly yellow, — as if poisoned by the water or something they had eaten. Perhaps the fishes had suffered by the falling of this pond-hole and consequent isolation from the main pond, which has left this part still more shallow and stagnant than before. It is full of the target-weed. If the pond continues to fall, undoubtedly all the fishes thus landlocked will die. I noticed at the above-named chink tracks which looked like those of an otter, where some animal had entered and come out of the water, leaving weeds and fragments of ice at the edge of the hole. No doubt several creatures, like otter and mink and foxes, know where to resort for their food at this season. This is now a perfect otter's or mink's preserve. Perhaps such a mass of decaying weeds is fatal to the fishes here.

It is evident that those frogs would have been frozen stiff the first colder night in such a shallow retreat. It is very likely that that hole (*i. e.* pout's hole) was under water when they took refuge there, and, the water going down, they were chilled. In such cases, then, pollywogs and fishes, and even frogs, resort to the last part to freeze, the warmest water, where it is open longest.

Examining those minnows by day, I find that they are one and one sixth inches long by two fifths of an inch wide (this my largest); in form like a bream; of a very pale golden like a perch, or more bluish. Have but one dorsal fin and, as near as I can count, rays, dorsal 19 (first, 9 stouter and stiff and more distinctly pointed, then 10 longer and flexible, whole fin about three times as long as average height), caudal 17 [?], anal 13 or 14, ventral 6, pectoral 10 (?). They have about seven trans-

verse dusky bars like a perch (!). Yet, from their form and single dorsal fin, I think they are breams. Are they not a new species? Have young breams transverse bars? A little narrower than this.[1]



Nov. 27. Those barren hollows and plains in the neighborhood of Walden are singular places.

I see many which were heavily wooded fifteen or thirty years ago now covered only with fine sedge, sweet-fern, or a few birches, willows, poplars, small wild cherries, panicled cornels, etc. They need not amount to hollows at all: many of them are glades merely, and all that region is elevated, but the surrounding higher ground, though it may be only five or ten feet higher, will be covered with a good growth. One should think twice before he cut off such places. Perhaps they had better never be laid bare, but merely thinned out. We do not begin to understand the treatment of woodland yet. On such spots you will see various young trees — and some of them which I have named — dead as if a fire had run through them, killed apparently by frost.

I find scarlet oak acorns like this; in form not essentially different from those of the black oak, except that the scales of the black stand out more loose and bristling about the fruit. So all scarlet oak acorns do not regularly taper to a point from a broad base, and

Scarlet Oak

[1] *Vide* [next page].

Emerson represents but one form of the fruit.[1] The leaf of this was not very deeply cut, was broad for its length.

I got seventeen more of those little bream of yesterday. As I now count, the dorsal fin-rays are 9–10 (Girard says 9–11), caudal 17 (with apparently 4 short on each side), anal 3–11, pectoral 11, ventral 1–5.[2] They have about seven transverse dark bars, a vertical dark mark under eye, and a dark spot on edge of operculum. They appear to be the young of the *Pomotis obesus*, described by Charles Girard to the Natural History Society in April, '54, obtained by Baird in fresh water about Hingham and [in] Charles River in Holliston.[3] I got more perfect specimens than the bream drawn above. They are exceedingly pretty seen floating dead on their sides in a bowl of water, with all their fins spread out. From their size and form and position they cannot fail to remind you of coins in the basin. The conspicuous transverse bars distinguish them at once. This is the form of the dorsal fin; which consists of two parts, the foremost of shorter stiff, spiny rays, the

[1] *Vide* Jan. 19th, 1859.

[2] *Vide* Dec. 3d. *Vide* also Mar. 26.

[3] [A newspaper clipping pasted into the Journal contains the following extract from a report of the proceedings of the Boston Society of Natural History: —

"Specimens of *Pomotis* and *Esox*, and of amphibians, were presented by Mr. H. D. Thoreau, from Concord, Mass. Mr. Putnam was of opinion that one of the *Pomotis* would prove a new species. There are with us two varieties of pickerel commonly known as the long or shovel-nosed, and the short or trout-nosed; these specimens were of the latter. Mr. Putnam was inclined to think these were distinct species, unless the differences should prove to be sexual. Drs. D. H. and

other eleven at least half as long again and quite flexible and waving, falling together like a wet rag *out of water*. So, with the anal fin, the three foremost rays are short and spiny, as I see, and one of each of the ventral (according to Girard, and to me). These foremost rays in each case look like slender raking masts, and their points project beyond the thin web of the fin, whose edge looks like the ropes which stretch from masthead to masthead, loop-wise. The stiff and spiny foremost part of the fins evidently serves for a cut-water which bears the brunt of any concussion and perhaps may serve for weapons of offense, while the more ample and gently waving flexible after part more especially guides the motions of the fish. The transverse bars are continued across these parts of the dorsal and anal fins, as the markings of a turtle across its feet or flippers; methinks the fins of the minnows are peculiarly beautiful.

How much more remote the newly discovered species seems to dwell than the old and familiar ones, though

H. R. Storer considered them varieties of the same species; Messrs. Baird and Girard think them (*Esox reticulatus* and *E. ornatus*) distinct."

Another clipping says: —

"Mr. F. W. Putnam at a previous meeting stated that possibly the young Pomotis presented by Mr. Thoreau were the *P. obesus* of Girard. He had since then examined Girard's original specimens, and he finds that they are the same. The *P. guttatus* recently described in the Proceedings of the Academy of Natural Sciences at Philadelphia is identical with *P. obesus*. Having teeth on the palatines, and consequently belonging to the genus *Bryttus*, the proper name for the species is *B. obesus* (Putnam). He had also satisfied himself that the *Esox ornatus* of Girard is the same as the *E. fasciatus* of De Kay."]

both inhabit the same pond! Where the *Pomotis obesus* swims must be a new country, unexplored by science. The seashore may be settled, but aborigines dwell unseen only thus far inland. This country is so new that species of fishes and birds and quadrupeds inhabit it which science has not yet detected. The water which such a fish swims in must still have a primitive forest decaying in it.

Nov. 28. A gray, overcast, still day, and more small birds — tree sparrows and chickadees — than usual about the house. There have been a very few fine snowflakes falling for many hours, and now, by 2 P. M., a regular snow-storm has commenced, fine flakes falling steadily, and rapidly whitening all the landscape. In half an hour the russet earth is painted white even to the horizon. Do we know of any other so silent and sudden a change?

I cannot now walk without leaving a track behind me; that is one peculiarity of winter walking. Anybody may follow my trail. I have walked, perhaps, a particular wild path along some swamp-side all summer, and thought to myself, I am the only villager that ever comes here. But I go out shortly after the first snow has fallen, and lo, here is the track of a sportsman and his dog in my secluded path, and probably he preceded me in the summer as well. Yet my hour is not his, and I may never meet him!

I asked Coombs the other night if he had been a-hunting lately. He said he had not been out but once this fall. He went out the other day with a companion, and

they came near getting a fox. They broke his leg. He has evidently been looking forward to some such success all summer. Having done thus much, he can afford to sit awhile by the stove at the post-office. He is plotting now how to break his head.

Goodwin cannot be a very bad man, he is so cheery.

And all the years that I have known Walden these striped breams have skulked in it without my knowledge! How many new thoughts, then, may I have?

Nov. 29. P. M. — To Hill.

About three inches of snow fell last evening, and a few cows on the hillside have wandered about in vain to come at the grass. They have at length found that place high on the south side where the snow is thinnest.

How bright and light the day now! Methinks it is as good as half an hour added to the day. White houses no longer stand out and stare in the landscape. The pine woods snowed up look more like the bare oak woods with their gray boughs. The river meadows show now far off a dull straw-color or pale brown amid the general white, where the coarse sedge rises above the snow; and distant oak woods are now more distinctly reddish. It is a clear and pleasant winter day. The snow has taken all the November out of the sky. Now blue shadows, green rivers, — both which I see, — and still winter life.

I see partridge and mice tracks and fox tracks, and crows sit silent on a bare oak-top. I see a living shrike caught to-day in the barn of the Middlesex House.

Nov. 30. The shrike was very violent for a long time, beating itself against the bars of its cage at Stacy's. To-day it is quiet and has eaten raw meat. Its plain dark ash-colored crown and back are separated by a very distinct line from the black wings. It has a powerful hawk-like beak, but slender legs and claws. Close to, it looks more like a muscicapa than anything.

P. M. — To Walden with Channing, and Fair Haven Hill.

It is a pleasant day and the snow melting considerably. We stand on the Pout's Nest, now frozen, with snow ice added to the old, so that it will bear, — a coarse frozen white batter, — and the hills around are covered with snow, though Walden is open. It is a perfect winter scene. This withdrawn but ample recess in the woods, with all that is necessary for a human residence, yet never referred to by the London *Times* and *Galignani's Messenger*, as some of those arctic bays are. Some are hastening to Europe and some to the West Indies, but here is a bay never steered for. These nameless bays where the *Times* and *Tribune* have no correspondent are the true bays of All Saints for me. Green pines on this side, brown oaks on that, the blue sky overhead, and this white counterpane all around. It is an insignificant fraction of the globe which England and Russia and the filibusters have overrun. The open pond close by, though considerably rippled to-day, affects me as a peculiarly mild and genial object by contrast with this frozen pool and the snow-covered shore, and I sit down on the shore in the sun, on the bare rocks. There seems to be a milder air above it, as the water within it is milder.

Walden in Early Winter

Going westward through Wheeler's Owl Wood toward Weird Dell, Well Meadow Field, I beheld a peculiar winter scene, seen many times before but forgotten. The sun, rather low, is seen through the wood with a cold, dazzling white lustre, like that of burnished tin reflected from the silvery needles of the pines. No powerful light streams through, but you stand in the quiet and somewhat sombre aisles of a forest cathedral, where cold green masses alternate with pale-brown but warm leather-colored ones, almost ruddy (you are inclined to call them red).[1] These are the internal decorations, while dark trunks, streaked with snow, rise on all sides, and a pure white floor stretches around, and perhaps a single patch of yellow sunlight is seen on the white shaded floor.

The short afternoons are come. Yonder dusky cloud-mass in the northwest will not be wafted across the sky before yonder sun that lurks so low will be set. We see purple clouds in the east horizon.

But did ever clouds flit and change, form and dissolve, so fast as in this clear, cold air? For it is rapidly growing colder, and at such a time, with a clear air and wind and shifting clouds, I never fail to see mother-o'-pearl tints abundant in the sky.

We see the tracks of a hunter and his hounds who have gone along the path from the Dell to the Cliffs. The dog makes a genuine track with his five toes, an honest dog's track, and if his master went barefoot we should count five toe-prints in his track too, and they would be seen to resemble each other remotely; but now we see only

[1] Reddish-tawny (?).

the track of a boot, and I thought the dog must be disgusted to tread in it. Walking thus where a man and two dogs had recently passed along, making a trail only a few inches wide, treading in one another's tracks alternately, the impression was that they had constantly crowded on one another, though in fact the dogs may have been a quarter of a mile ahead [of] or behind their master. The dog rosette identical [with that] which is spotted all over Greece. They go making these perfect imperfect [*sic*] impressions faster than a Hoe's cylinder power-press.

Coming over the side of Fair Haven Hill at sunset, we saw a large, long, dusky cloud in the northwest horizon, apparently just this side of Wachusett, or at least twenty miles off, which was snowing, when all the rest was clear sky. It was a complete snow-cloud. It looked like rain falling at an equal distance, except that the snow fell less directly and the upper outline of a part of the cloud [was] more like that of a dusky mist. It was [not] much of a snow-storm, just enough to partially obscure the sight of the mountains about which it was falling, while the cloud was apparently high above them, or it may have been a little this side. The cloud was of a dun color, and at its south end, near where the sun was just about to set, it was all aglow on its under side with a salmon fulgor, making it look warmer than a furnace at the same time that it was snowing. In short, I saw a cloud, quite local in the heavens, whose south end rested over the portals of the day, twenty and odd miles off, and was lit by the splendor of the departing sun, and from this lit cloud snow was falling. It was merely

an extensive flurry, though it may have lasted twenty minutes.

I have seen a dark cloud as wide as the sky rolling up from the northwest and blasting all my hopes, at sight of which I have dismissed the sun for three weeks and resigned myself to my fate. But when, after being absorbed in other meditations, I have looked round for that cloud half an hour after, I have distinguished only an indistinct white film far in the southeast which only added to the glory of the day by reflecting its light.

The river may be said to have frozen generally last night.

That was a remarkable prospect from the side of Fair Haven Hill just before the sun set, a strong cold northwest wind blowing, and as good a winter prospect as the arctic regions present, — the brilliant Blessed Isles already gathered about the portals of the day, and mother-o'-pearl clouds forming and dissolving in the crisped air between the zenith and the west horizon, while at least twenty miles off (at first thirty) in the northwest a vast dark dun-colored cloud whose southern end overlapped the setting sun, a glowing canopy, was snowing on the mountains seen dimly beneath it. It was a rare and strange sight, that of a snow-storm twenty miles off on the verge of a perfectly clear sky. Thus local is all storm, surrounded by serenity and beauty. The terrestrial mountains were made ridiculous beneath that stupendous range. I said to my companion, "There comes a storm which will cover the earth four feet deep. Make haste and do your necessary work before the night comes." But before we had got home I saw it in the

east still further off, — not having seen it pass us, — a pale ethereal film, almost dissolved in the sky, as indistinct as a fabulous island. In these clear, cold days fear no cloud. They vanish and dissolve before the cloud-consuming air. This air snaps them up like a dog his meat.

Bare hickories now seen over the shining surface of the snow suggest a cold equal to that of the Cold Friday. As I go up the hill eastward while the sun is setting, I see a tinge of green reflected from its surface under my face, and the scattered clouds in the east are greener yet.

C. thought that if he lived in Weird Dell — which I talked of buying — he should come and sit on the northwest side every night and see the shadows steal gradually across it.

Just before the sun disappeared we saw, just in the edge of the horizon westward from Acton, maybe eight miles off, a very brilliant fire or light, just like a star of the first magnitude or a house burning without smoke, and this, though so far and so brilliant, was undoubtedly only the sun reflected from some gilt weathercock there. So incredibly brilliant are all surfaces now. It was pure flame, larger than a house, precisely as if the planet Venus rested in the horizon's edge. Possibly the weathercock was nearer, but we both concluded that it was not.

The sun seen setting through the snow-carpeted woods, with shimmering pine-needles or dark-green masses and warm brown oak leaves for screens. With the advent of snow and ice, so much cold white, the

browns are warmer to the eye. All the red that is in oak leaves and huckleberry twigs comes out.

A cloud, then, which glows high above the portals of the day seven or eight minutes before the sun disappears, may be some twenty miles off only.

Neither England nor America have [*sic*] any right to laugh at that sentence in the rare book called "The Blazon of Gentry," written by a zealous student of heraldry, which says after due investigation that "Christ was a gentleman, as to the flesh, by the part of his mother, . . . and might have borne coat-armor. The apostles also were gentlemen of blood, and many of them descended from that worthy conqueror Judas Machabeus; but, through the tract of time, and persecution of wars, poverty oppressed the kindred and they were constrayned to servile workes." Whatever texts we may quote or commentaries we may write, when we consider the laws and customs of these two countries we cannot fail to perceive that the above sentence is perfectly of a piece with our practical commentary on the New Testament. The above is really a pertinent reason offered why Christianity should be embraced in England and America. Indeed, it is, accordingly, only what may be called "respectable Christianity" that is at all generally embraced in the two countries.

I read that a woman picked a pint of ripe red raspberries at Bunker Hill Cliff, where they get the Quincy granite, October 1st, this year.[1]

There is a late greenness accompanied by a few yellow flowers, a November greenness, methinks, corre-

[1] Was it not Nov. 1st?

sponding to the early greenness of the spring and its blossoms. Early in November (and late in October) lycopodiums and evergreen ferns (the small botrychium sheds pollen then, as well as several lycopodiums) have their day, under the yellow flowers of the witch-hazel and amid a few lingering goldenrods, as in spring green radical leaves are associated with alder and willow blossoms. The cold greens have their day so late in the fall. I do not speak so much of a lingering verdure, but of one which then is most flourishing and, you may say, greenest before the lichen days have come.

I cannot but see still in my mind's eye those little striped breams poised in Walden's glaucous water. They balance all the rest of the world in my estimation at present, for this is the bream that I have just found, and for the time I neglect all its brethren and am ready to kill the fatted calf on its account. For more than two centuries have men fished here and have not distinguished this permanent settler of the township. It is not like a new bird, a transient visitor that may not be seen again for years, but there it dwells and has dwelt permanently, who can tell how long? When my eyes first rested on Walden the striped bream was poised in it, though I did not see it, and when Tahatawan paddled his canoe there. How wild it makes the pond and the township to find a new fish in it! America renews her youth here. But in my account of this bream I cannot go a hair's breadth beyond the mere statement that it exists, — the miracle of its existence, my contemporary and neighbor, yet so different from me! I can only poise my thought there by its side and try to think

like a bream for a moment. I can only think of precious jewels, of music, poetry, beauty, and the mystery of life. I only see the bream in its orbit, as I see a star, but I care not to measure its distance or weight. The bream, appreciated, floats in the pond as the centre of the system, another image of God. Its life no man can explain more than he can his own. I want you to perceive the mystery of the bream. I have a contemporary in Walden.[1] It has fins where I have legs and arms. I have a friend among the fishes, at least a new acquaintance. Its character will interest me, I trust, not its clothes and anatomy. I do not want it to eat. Acquaintance with it is to make my life more rich and eventful. It is as if a poet or an anchorite had moved into the town, whom I can see from time to time and think of yet oftener. Perhaps there are a thousand of these striped bream which no one had thought of in that pond, — not their mere impressions in stone, but in the full tide of the bream life.

Though science may sometimes compare herself to a child picking up pebbles on the seashore, that is a rare mood with her; ordinarily her practical belief is that it is only a few pebbles which are *not* known, weighed and measured. A new species of fish signifies hardly more than a new name. See what is contributed in the scientific reports. One counts the fin-rays, another measures the intestines, a third daguerreotypes a scale, etc., etc.; otherwise there 's nothing to be said. As if all but this were done, and these were very rich and generous contributions to science. Her votaries may be seen wan-

[1] [Channing, pp. 299, 300.]

dering along the shore of the ocean of truth, with their backs to that ocean, ready to seize on the shells which are cast up. You would say that the scientific bodies were terribly put to it for objects and subjects. A dead specimen of an animal, if it is only well preserved in alcohol, is just as good for science as a living one preserved in its native element.

What is the amount of my discovery to me? It is not that I have got one in a bottle, that it has got a name in a book, but that I have a little fishy friend in the pond. How was it when the youth first discovered fishes? Was it the number of their fin-rays or their arrangement, or the place of the fish in some system that made the boy dream of them? Is it these things that interest mankind in the fish, the inhabitant of the water? No, but a faint recognition of a living contemporary, a provoking mystery.[1] One boy thinks of fishes and goes a-fishing from the same motive that his brother searches the poets for rare lines. It is the poetry of fishes which is their chief use; their flesh is their lowest use. The beauty of the fish, that is what it is best worth the while to measure. Its place in our systems is of comparatively little importance. Generally the boy loses some of his perception and his interest in the fish; he degenerates into a fisherman or an ichthyologist.[2]

[1] [Channing, p. 300.]

[2] *Vide* [pp. 363, 364].

VI

DECEMBER, 1858

(ÆT. 41)

Dec. 2. When I first saw that snow-cloud it stretched low along the northwest horizon, perhaps one quarter round and half a dozen times as high as the mountains, and was remarkably horizontal on its upper edge, but that edge was obviously for a part of the way very thin, composed of a dusky mist which first suggested snow. When, soon after, it had risen and advanced and was plainly snowing, it was as if some great dark machine was sifting the snow upon the mountains. There was at the same time the most brilliant of sunsets, the clearest and crispiest of winter skies. We have had every day since similar slight flurries of snow, we being in their midst.

Dec. 3. P. M. — To Walden.

A deliciously mild afternoon, though the ground is covered with snow. The cocks crowed this morning as of yore.

I carry hatchet and rake in order to explore the Pout's Nest for frogs and fish, — the pond not being frozen. A small part of that chink of the 26th is not yet frozen, and is crowded with pollywogs, mostly of large size, and very many have legs more or less developed. With my small iron rake, about a foot long by

four inches wide, I jerk on to the ice at one jerk forty-five pollywogs, and more than as many more fall into the water. Many of the smallest pollywogs have bright copper-red bellies, prettily spotted, while the large are commonly pale-yellow, either clear or spotted. Many are dying. They have crowded so thickly along the open chink three or four inches wide by the side of a boat in the ice that, when I accidentally rock it, about a hundred are washed out on to the ice. One salamander among them, and four of the new breams, much larger, darker, and richer-colored than any I had found. I have often seen pollywogs in small numbers in the winter, in spring-holes, etc., but never such crowding to air-holes in the ice. All that is peculiar in this case is that this small pond has recently been cut off from the main pond by the falling of the water and that it is crowded with vegetable matter, chiefly target-weed, so that apparently the stagnant water has not only killed the breams and perch (of which last I find three dead) but many pollywogs, and compels others to seek the surface.

As I return home by the Shanty Field and the railroad, I cannot help contrasting this evening with the 30th (on Fair Haven Hill-side). Now there is a genial, soft air, and in the west many clouds of purplish dove-color. I walk with unbuttoned coat, taking in the influences of the hour. Coming through the pitch pines east of the Shanty Field, I see the sun through the pines very yellow and warm-looking, and every twig of the pines and every weed is lit with yellow light (not silvery). The other night the few cloudy islets about [the] setting sun (where it had set) were glitter-

ingly bright afar through the cold air. Now (when I get to the causeway) all the west is suffused with an extremely rich, warm purple or rose-color, while the edges of what were dove-colored clouds have a warm saffron glow, finally deepening to rose or damask when the sun has set. The other night there was no reddening of the clouds after sunset, no afterglow, but the glittering clouds were almost immediately snapped up in the crisped air.

I improve every opportunity to go into a grist-mill, any excuse to see its cobweb-tapestry. I put questions to the miller as an excuse for staying, while my eye rests delighted on the cobwebs above his head and perchance on his hat.

The salamander above named, found in the water of the Pout's Nest, is the *Salamandra symmetrica*.[1] It is some three inches long, brown (not dark-brown) above and yellow with small dark spots beneath, and the same spots on the sides of the tail; a row of very minute vermilion spots, not detected but on a close examination, on each side of the back; the tail is waved on the edge (upper edge, at least); has a pretty, bright eye. Its tail, though narrower, reminds me of the pollywog. Why should not it lose its tail as well as that?[2]

The largest of the four breams (*vide* November 26th) two and nine twentieths inches long, by one inch broad and nine twentieths thick. The back, sides forward, tail, and anal fin black or blackish or very dark; the trans-

[1] Probably *dorsalis*. *Vide* Apr. 18, 1859.

[2] See one with much larger vermilion spots, Apr. 18, 1859. Are they not larger in the spring?

verse dark bars few and indistinct except in middle of fish; sides toward tail yellowish-olive. Rear of abdomen has violet reflections (and about base of anal fin). Operculums tinged, streaked, and spotted with golden, coppery, greenish, and violet reflections. A vertical dark mark or line, corresponding to the stripes, through the eye. Iris copper-color or darker. The others, about two inches long, are differently colored, not so dark, more olive, and distinctly barred. The smallest are the lightest-colored, but the larger on the whole richer, as well as darker. The fins, especially the dorsal, caudal, and anal, are remarkably pretty, in color a fine network of light and dark. The lower jaw extends about three fortieths of an inch beyond the upper. The rich dark, almost black, back, with dark-barred sides alternating with yellowish olive, and the fine violet-purple reflections from the sides of the abdomen, like the nacre of a shell, as coin-like they lie flat in a basin, — such jewels they swam between the stems (clothed in transparent jelly) of the target-weed.

R. W. E. saw quite a flock of ducks in the pond (Walden) this afternoon.

Dec. 5. Some sugar maples, both large and small, have still, like the larger oaks, a few leaves about the larger limbs near the trunk.

P. M. — To Walden.

Snowed yesterday afternoon, and now it is three or four inches deep and a fine mizzle falling and freezing to the twigs and stubble, so that there is quite a glaze. The stiffened ice-coated weeds and grasses on

the causeway recall past winters. These humble withered plants, which have not of late attracted your attention, now arrest it by their very stiffness and exaggerated size. Some grass culms eighteen inches or two feet high, which nobody noticed, are an inexhaustible supply of slender ice-wands set in the snow. The grasses and weeds bent to the crusty surface form arches of various forms. It is surprising how the slenderest grasses can support such a weight, but the culm is buttressed by another icy culm or column, and the load gradually taken on. In the woods the drooping pines compel you to stoop. In all directions they are bowed down, hanging their heads. The large yellowish leaves of the black oak (young trees) are peculiarly conspicuous, rich and warm, in the midst of this ice and snow, and on the causeway the yellowish bark of the willows gleams warmly through the ice. The birches are still upright, and their numerous parallel white ice-rods remind me of the recent gossamer-like gleams which they reflected.

How singularly ornamented is that salamander! Its brightest side, its yellow belly, sprinkled with fine dark spots, is turned downward. Its back is indeed ornamented with two rows of bright vermilion spots, but these can only be detected on the very closest inspection, and poor eyes fail to discover them even then, as I have found.

Dec. 6. Go out at 9 A. M. to see the glaze. It is already half fallen, melting off. The dripping trees and wet falling ice will wet you through like rain in the woods. It is a lively sound, a busy tinkling, the inces-

sant brattling and from time to time rushing, crashing sound of this falling ice, and trees suddenly erecting themselves when relieved of their loads. It is now perfect only on the north sides of woods which the sun has not touched or affected. Looking at a dripping tree between you and the sun, you may see here or there one or another rainbow color, a small brilliant point of light. Yesterday it froze as it fell on my umbrella, converting the cotton cloth into a thick stiff glazed sort of oilcloth, so that it was impossible to shut it.

Dec. 7. To Boston.

At Natural History Rooms.

The egg of *Turdus solitarius* is light-bluish with pale-brown spots. This is apparently mine which I call hermit thrush, though mine is [*sic*] redder and distincter brown spots.

The egg of *Turdus brunneus* (called hermit thrush) is a clear blue.

The rail's egg (of Concord, which I have seen) is not the Virginia rail's, which is smaller and nearly pure white, nor the clapper rail's, which is larger. Is it the sora rail's (of which there is no egg in this collection)?

My egg found in R. W. E.'s garden is not the white-throated sparrow's egg.

Dr. Bryant calls my seringo (*i. e.* the faint-noted bird) Savannah sparrow. He says Cooper's hawk is just like the sharp-shinned, only a little larger commonly. He could not tell them apart. Neither he nor Brewer can

identify eggs always. Could match some gulls' eggs out of another basket full of a different species as well as out of the same basket.

Dec. 9. At New Bedford.

See a song sparrow and a pigeon woodpecker. Dr. Bryant tells of the latter picking holes in blinds, and also in his barn roof and sides in order to get into it; holes in the window sashes or casings as if a nail had been driven into them.

Asked a sailor at the wharf how he distinguished a whaler. He said by the "davits," large upright timbers with sheaves curving over the sides, thus: to hold up the boats (a merchantman has only a few and small at the stern); also by the place for the man to stand at masthead (crosstrees, I should say they were) and look out for whales, which you do not see on a merchant-ship; *i. e.*, the crosstrees of the latter are very slight, of the whaler somewhat like this:

Dec. 11. P. M. — To Walden.

An overcast afternoon and rather warm. The snow on the ground in pastures brings out the warm red in leafy oak woodlands by contrast. These are what Thomson calls "the tawny copse." So that they suggest both shelter and warmth. All browns, indeed, are warmer now than a week ago. These oak woodlands half a mile off, commonly with pines intermingled, look like warm coverts for birds and other wild animals. How much warmer our woodlands look and *are* for

these withered leaves that still hang on! Without them the woods would be dreary, bleak, and wintry indeed. Here is a manifest provision for the necessities of man and the brutes. These leaves remain to keep us warm, and to keep the earth warm about their roots. While the oak leaves look redder and warmer, the pines look much darker since the snow has fallen (the hemlocks darker still). A mile or two distant they are dark-brown, or almost black, as, still further, is all woodland, and in the most distant horizon have a blue tinge like mountains, from the atmosphere. The boughs of old and bare oak woods are gray and in harmony with the white ground, looking as if snowed on.

Already, in hollows in the woods and on the sheltered sides of hills, the fallen leaves are collected in small heaps on the snow-crust, simulating bare ground and helping to conceal the rabbit and partridge, etc. They are not equally diffused, but collected together here and there as if for the sake of society.

I find at the Pout's Nest, now quite frozen over, air-holes and all, twenty-two pollywogs frozen in and dead within a space of two and a half feet square, also a minnow — apparently a young shiner, but it has a dark longitudinal line along side (about an inch and a half long) — with the bream.[1]

The terminal shoots of the small scarlet oaks are still distinctly red, though withered.

A "swirl," applied to leaves suddenly caught up by a sort of whirlwind, is a good word enough, methinks.

Walden is about one-third skimmed over. It is frozen

[1] *Vide* 25th.

nearly half the way out from the northerly shore, excepting a very broad open space on the northwest shore and a considerable space at the pines at the northeast end; but the ice, thin as it is, extends quite across from the northwest side to the southwest cape (west side of the railroad bay) by an isthmus only two or three rods wide in its narrowest part. It is evident that whether a pond shall freeze this side or that first depends much on the wind. If it is small and lies like Walden between hills, I should expect that in perfectly calm weather it would freeze soonest along the south shore, but in this case there was probably wind from the north or northwest, and the more sheltered and smooth north side froze first. The warmth reflected from the pines at the northeast corner may account for the open water there, but I cannot account for the open space of the northwest end.[1] It is remarkable that the south edge of the ice projects southward in a cape corresponding to the deep triangular bay in the south side, though it is in the middle of the pond, and there is even a rude correspondence elsewhere along the edge of the ice to the opposite shore. This might seem to indicate that the ice to some extent formed first over deepest water.

When the ice was melting and the trees dripping, on the morning of the 6th, I noticed that the snow was discolored, — stained yellow by this drip, — as if the trees were urinating.

[1] It must be because it is there open to the rake of the north wind, the shore being flat and gently sloping backward a long way, while the protection of Heywood's Peak may account for the ice-isthmus being met by the break-wind of the west railroad cape.

The large scarlet oak in the cemetery has leaves on the lower limbs near the trunk just like the large white oaks now. So has the largest black oak which I see. Others of both, and all, kinds are bare.

Some, being offended, think sharp and satirical things, which yet they are not prepared consciously to utter. But in some unguarded moment these things escape from them, when they are as it were unconscious. They betray their thoughts, as it were by talking in their sleep, for the truth will out, under whatever veil of civility.

Dec. 12 P. M. — Up river on ice to Fair Haven Hill.

Crossing the fields west of our Texas house, I see an immense flock of snow buntings, I think the largest that I ever saw. There must be a thousand or two at least. There is but three inches, at most, of crusted and dry frozen snow, and they are running amid the weeds which rise above it. The weeds are chiefly *Juncus tenuis* (?), but its seeds are apparently gone. I find, however, the glumes of the piper grass scattered about where they have been. The flock is at first about equally divided into two parts about twenty rods apart, but birds are incessantly flitting across the interval to join the pioneer flock, until all are united. They are very restless, running amid the weeds and continually changing their ground. They will suddenly rise again a few seconds after they have alighted, as if alarmed, but after a short wheel settle close by. Flying from you, in some positions, you see only or chiefly the black part of their bodies, and then, as they wheel, the white comes into

view, contrasted prettily with the former, and in all together at the same time. Seen flying higher against a cloudy sky they look like large snowflakes. When they rise all together their note is like the rattling of nuts in a bag, as if a whole binful were rolled from side to side. They also utter from time to time — *i. e.*, individuals do — a clear rippling note, perhaps of alarm, or a call. It is remarkable that their notes above described should resemble the lesser redpolls! Away goes this great wheeling, rambling flock, rolling through the air, and you cannot easily tell where they will settle. Suddenly the pioneers (or a part not foremost) will change their course when in full career, and when at length they know it, the rushing flock on the other side will be fetched about as it were with an undulating jerk, as in the boys' game of snap-the-whip, and those that occupy the place of the snapper are gradually off after their leaders on the new tack. As far as I observe, they confine themselves to upland, not alighting in the meadows. Like a snow-storm they come rushing down from the north. The extremities of the wings are black, while the parts next their bodies are black [*sic*]. They are unusually abundant now.

See a shrike on a dead pine at the Cliffs.

The pitch pines have not done falling, considerable having fallen on the snow.

The river meadows, where they were not cut, are conspicuous brown-straw-colored now,— in the sun almost a true straw-color. November lingers still there.

I should like to know where all those snowbirds will

roost to-night, for they will probably roost together. And what havoc an owl might make among them![1]

Dec. 13. P. M. — To Walden.

There is a fine mizzling rain, which rests in small drops on your coat, but on most surfaces is turning to a glaze. Yet it is not cold enough for gloves even, and I think that the freezing may be owing to the fineness of the rain, and that, if it should rain much harder, even though it were colder, it would not freeze to what it fell on. It freezes on the railroad rails when it does not on the wooden sleepers. Already I begin to see, on the storm side of every twig and culm, a white glaze (reflecting the snow or sky), rhyming with the vegetable core. And on those fine grass heads which are bent over in the path the fine dew-like drops are frozen separately like a string of beads, being not yet run together. There is little if any wind, and the fine rain is visible only against a dark ground.

There is not so much ice in Walden as on the 11th.

A damp day brings out the color of oak leaves, somewhat as of lichens. They are of a brighter and deeper leather-color, richer and more wholesome, hanging more straightly down than ever. They look peculiarly clean and wholesome, their tints brought out and their lobes more flattened out, and they show to great advantage, these trees hanging still with leather-colored leaves in this mizzling rain, seen against the misty sky.

[1] Melvin tells me that he saw a thousand feeding a long time in the Great Meadows, — he thinks on the seeds of the wool-grass (!!), — about same time.

They are again as it were full-veined with some kind of brown sap.

Dec. 14. I see at Derby's shop a barred owl (*Strix nebulosa*), taken in the woods west of the factory on the 11th, found (with its wing broke [*sic*]) by a wood-chopper. It measures about three and a half feet in alar extent by eighteen to twenty inches long, or *nearly* the same as the cat owl, but is small and without horns. It is very mild and quiet, bears handling perfectly well, and only snaps its bill with a loud sound at the sight of a cat or dog. It is apparently a female, since it is large and has white spots on the wings. The claws are quite dark rather than dark horn-color. It hopped into the basin of the scales, and I was surprised to find that it weighed only one pound and one ounce. It may be thin-fleshed on account of its broken wing, but how light-bodied these fliers are! It has no yellow iris like the cat owl, and has the bristles about its yellow bill which the other has not. It has a very smooth and handsome round head, a brownish gray. Solemnity is what they express, — fit representatives of the night.

Dec. 18. P. M. — To Walden.

The pond is merely frozen a little about the edges. I see various little fishes lurking under this thin, transparent ice, close up to the edge or shore, especially where the shore is flat and water shoal. They are little shiners[1] with the dark longitudinal stripe, about an inch and a half long, perch, and one pickerel about a foot long. They are all a peculiar rich-brown color seen thus

[1] ? ? *Vide* 25th.

through the ice. They love to get up as close to the shore as possible, and when you walk along you scare them out. I cast a stone on the ice over a perch six inches long, thinking only to stun it, but killed it so. The ice is about one inch thick. I notice that it is firmly frozen to the shore, so that there is no rise and fall as when it was water, or at least nothing equal to that, but the ice has been cracked with a great many parallel cracks six inches to a foot from the shore. Yet apparently no water has oozed out there.

Minott tells how he used to love to walk through swamps where great white pines grew and hear the wind sough in their tops. He recalls this now as he crouches over his stove, but he adds that it was dangerous, for even a small dead limb broken off by the wind and falling from such a height would kill a man at once.

Dec. 20. Walden is frozen over, except two small spots, less than half an acre in all, in middle.

Dec. 22. P. M. — To Walden.

I see in the cut near the shanty-site quite a flock of *F. hyemalis* and goldfinches together, on the snow and weeds and ground. Hear the well-known mew and watery twitter of the last and the drier *chilt chilt* of the former. These burning yellow birds with a little black and white on their coat-flaps look warm above the snow. There may be thirty goldfinches, very brisk and pretty tame. They hang head downwards on the weeds. I hear of their coming to pick sunflower seeds in Melvin's garden these days.

The pond is no more frozen than on the 20th. I see where a rabbit has hopped across it in the slosh last night, making a track larger than a man's ordinarily is.

Dec. 23. P. M. — To Eddy Bridge.

Colder last night. Walden undoubtedly frozen at last, — what was left to freeze.[1]

See a shrike on the top of an oak. It sits still, pluming itself. At first, when it was flying, I thought it a hairy woodpecker.

How perfectly at home the musquash is on our river. And then there is an abundance of clams, a wholesome diet for him, to be had for the diving for them. I do not know that he has any competition in this chase, unless it is an occasional otter. The clams are a sizable fish and in time of scarcity would not be contemptible food for man.

Dec. 24. Those two places in middle of Walden not frozen over yet, though it was quite cold last night!

See another shrike this afternoon, — the fourth this winter! It looks much smaller than a jay.

Dec. 25. P. M. — Up river on ice to Fair Haven Pond and across to Walden.

The ground is still for the most part bare. Such a December is at least as hard a month to get through as November. You come near eating your heart now.

There is a good deal of brown or straw-color in the landscape now, especially in the meadows, where the

[1] No.

ranker grasses, many of them uncut, still stand. They are bleached a shade or two lighter. Looking from the sun, there is a good deal of warm sunlight in them. I see where one farmer has been getting this withered sedge on the ice within a day or two for litter, in a meadow which had not been cut. Of course he could not cut very close.

The ice on the river is about half covered with light snow, it being drifted thus, as usual, by the wind. (On Walden, however, which is more sheltered, the ice is uniformly covered and white.) I go running and sliding from one such snow-patch to another. It is easiest walking on the snow, which gives a hold to my feet, but I walk feebly on the ice. It is so rough that it is but poor sliding withal.

I see, in the thin snow along by the button-bushes and willows just this side of the Hubbard bridge, a new track to me, looking even somewhat as if made by a row of large rain-drops, but it is the track of some small animal. The separate tracks are at most five eighths of an inch in diameter, nearly round, and one and three quarters to two inches apart, varying perhaps half an inch from a straight line, thus: . . . . . Sometimes they are three or four inches apart. The size is but little larger than that of a mouse, but it is never : : thus, or like a mouse. Goodwin, to whom I described it, did not know what it could be.

The sun getting low now, say at 3.30, I see the ice green, southeast.

Goodwin says that he once had a partridge strike a

twig or limb in the woods as she flew, so that she fell and he secured her.

Going across to Walden, I see that the fuzzy purple wool-grass is now bleached to a dark straw-color without any purple.

I notice that a fox has taken pretty much my own course along the Andromeda Ponds. The sedge which grows in tufts eighteen or twenty inches high there is generally recurving, thus:—

I see that the shiners which Goodwin is using for bait to-day have no longitudinal dark bar or line on their sides, such as those minnows of the 11th and 18th had. Yet I thought that by the position of their fins, etc., the latter could not be the banded minnow.

Walden at length skimmed over last night, *i. e.* the two holes that remained open. One was very near the middle and deepest part, the other between that and the railroad.

Now that the sun is setting, all its light seems to glance over the snow-clad pond and strike the rocky shore under the pitch pines at the northeast end. Though the bare rocky shore there is only a foot or a foot and a half high as I look, it reflects so much light that the rocks are singularly distinct, as if the pond showed its teeth.

I stayed later to hear the pond crack, but it did not much. How full of soft, pure light the western sky now, after sunset! I love to see the outlines of the pines against it. Unless you watch it, you do not know when the sun goes down. It is like a candle extinguished

without smoke. A moment ago you saw that glittering orb amid the dry oak leaves in the horizon, and now you can detect no trace of it. In a pensive mood I enjoy the complexion of the winter sky at this hour.

Those small sphagnous mountains in the Andromeda Ponds are grotesque things. Being frozen, they bear me up like moss-clad rocks and make it easy getting through the water-brush.

But for all voice in that serene hour I hear an owl hoot. How glad I am to hear him rather than the most eloquent man of the age!

I saw a few days ago the ground under a swamp white oak in the river meadow quite strewn with brown dry galls about as big as a pea and quite round, like a small fruit which had fallen from it.

Dec. 26. P. M. — To Jenny Dugan's.

I walk over the meadow above railroad bridge, where the withered grass rises above the ice, the river being low. I notice that water has oozed out over the edge of this ice or next the meadow's edge on the west, not having come from the river but evidently from springs in the bank. This thin water is turned to a slush of crystals as thick as mortar nearly, and will soon be solid ice.

Call at a farmer's this Sunday afternoon, where I surprise the well-to-do masters of the house lounging in very ragged clothes (for which they think it necessary to apologize), and one of them is busy laying the supper-table (at which he invites me to sit down at last), bringing up cold meat from the cellar and a lump of butter

on the end of his knife, and making the tea by the time his mother gets home from church. Thus sincere and homely, as I am glad to know, is the actual life of these New England men, wearing rags indoors there which would disgrace a beggar (and are not beggars and paupers they who *could be* disgraced so?) and doing the indispensable work, however humble. How much better and more humane it was than if they had imported and set up among their Penates a headless torso from the ruins of Ireland! I am glad to find that our New England life has a genuine humane core to it; that inside, after all, there is so little pretense and brag. Better than that, methinks, is the hard drinking and quarrelling which we must allow is not uncommon there. The middle-aged son sits there in the old unpainted house in a ragged coat, and helps his old mother about her work when the field does not demand him.

Dec. 27. Talk of fate! How little one can know what is fated to another! — what he can do and what he can not do! I doubt whether one can give or receive any very pertinent advice. In all important crises one can only consult his genius. Though he were the most shiftless and craziest of mortals, if he still recognizes that he has any genius to consult, none may presume to go between him and her [*sic*]. They, methinks, are poor stuff and creatures of a miserable fate who can be advised and persuaded in very important steps. Show me a man who consults his genius, and you have shown me a man who cannot be advised. You may know what a thing costs or is worth to you; you can

never know what it costs or is worth to me. All the community may scream because one man is born who will not do as it does, who will not conform because conformity to him is death, — he is so constituted. They know nothing about his case; they are fools when they presume to advise him. The man of genius knows what he is aiming at; nobody else knows. And he alone knows when something comes between him and his object. In the course of generations, however, men will excuse you for not doing as they do, if you will bring enough to pass in your own way.

Dec. 28. P. M. — To Walden.

The earth is bare. I walk about the pond looking at the shores, since I have not paddled about it much of late years. What a grand place for a promenade! Methinks it has not been so low for ten years, and many alders, etc., are left dead on its brink. The high blueberry appears to bear this position, alternate wet and dry, as well as any shrub or tree. I see winterberries still abundant in one place.

That rocky shore under the pitch pines which so reflects the light, is only three feet wide by one foot high; yet there even to-day the ice is melted close to the edge, and just off this shore the pickerel are most abundant. This is the warm and sunny side to which any one — man, bird, or quadruped — would soonest resort in cool weather. I notice a few chickadees there in the edge of the pines, in the sun, lisping and twittering cheerfully to one another, with a reference to me, I think, — the cunning and innocent little birds. One a

little further off utters the phœbe note. There is a foot more or less of clear open water at the edge here, and, seeing this, one of these birds hops down as if glad to find any open water at this season, and, after drinking, it stands in the water on a stone up to its belly and dips its head and flirts the water about vigorously, giving itself a good washing. I had not suspected this at this season. No fear that it will catch cold.

The ice cracks suddenly with a shivering jar like crockery or the brittlest material, such as it is. And I notice, as I sit here at this open edge, that each time the ice cracks, though it may be a good distance off toward the middle, the water here is very much agitated. The ice is about six inches thick.

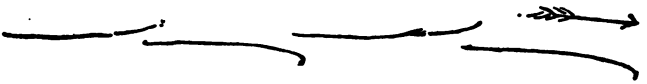
Aunt Jane says that she was born on Christmas Day, and they called her a Christmas gift, and she remembers hearing that her Aunt Hannah Orrock was so disconcerted by the event that she threw all the spoons outdoors, when she had washed them, or with the dishwater.

Father says that he and his sisters (except Elizabeth) were born in Richmond Street, Boston, between Salem and Hanover Streets, on the spot where a bethel now stands, on the left hand going from Hanover Street. They had milk of a neighbor, who used to drive his cows to and from the Common every day.

Dec. 29. P. M. — Skate to Israel Rice's.

I think more of skates than of the horse or locomotive as annihilators of distance, for while I am getting along with the speed of the horse, I have at the same time the

satisfaction of the horse and his rider, and far more adventure and variety than if I were riding. We never cease to be surprised when we observe how swiftly the skater glides along. Just compare him with one walking or running. The walker is but a snail in comparison, and the runner gives up the contest after a few rods. The skater can afford to follow all the windings of a stream, and yet soon leaves far behind and out of sight the walker who cuts across. Distance is hardly an obstacle to him. I observe that my ordinary track is like this:



the strokes being seven to ten feet long. The new stroke is eighteen or twenty inches one side of the old. The briskest walkers appear to be stationary to the skater. The skater has wings, *talaria*, to his feet. Moreover, you have such perfect control of your feet that you can take advantage of the narrowest and most winding and sloping bridge of ice in order to pass between the button-bushes and the open stream or under a bridge on a narrow shelf, where the walker cannot go at all. You can glide securely within an inch of destruction on this the most slippery of surfaces, more securely than you could walk there, perhaps, on any other material. You can pursue swiftly the most intricate and winding path, even leaping obstacles which suddenly present themselves.

I saw, on the ice off Pole Brook, a small caterpillar curled up as usual (over the middle of the river) but wholly a light yellow-brown. Just above south entrance

to Farrar Cut, a large hornets' nest thirty feet high on a maple over the river.

Heavy Haynes was fishing a quarter of a mile this side of Hubbard's Bridge. He had caught a pickerel, which the man who weighed it told me (he was apparently a brother of William Wheeler's, and I saw the fish at the house where it was) weighed four pounds and three ounces. It was twenty-six inches long. It was a very handsome fish,— dark-brown above, yellow and brown on the sides, becoming at length almost a clear golden yellow low down, with a white abdomen and reddish fins. They are handsome fellows, both the pikes in the water and tigers in the jungle. The shiner and the red-finned minnow (a dace) are the favorite bait for them.

What tragedies are enacted under this dumb icy platform in the fields! What an anxious and adventurous life the small fishes must live, liable at any moment to be swallowed by the larger. No fish of moderate size can go sculling along safely in any part of the stream, but suddenly there may come rushing out this jungle or that some greedy monster and gulp it down. Parent fishes, if they care for their offspring, how can they trust them abroad out of their sight? It takes so many young fishes a week to fill the maw of this large one. And the large ones! Heavy Haynes and Company are lying in wait for them.

VII

JANUARY, 1859

(ÆT. 41)

Jan. 2. P. M. — To Cliffs and Walden.

Going up the hill through Stow's young oak woodland, I listen to the sharp, dry rustle of the withered oak leaves. This is the voice of the wood now. It would be comparatively still and more dreary here in other respects, if it were not for these leaves that hold on. It sounds like the roar of the sea, and is enlivening and inspiriting like that, suggesting how all the land is seacoast to the aerial ocean. It is the sound of the surf, the rut of an unseen ocean, billows of air breaking on the forest like water on itself or on sand and rocks. It rises and falls, wells and dies away, with agreeable alternation as the sea surf does. Perhaps the landsman can foretell a storm by it. It is remarkable how universal these grand murmurs are, these backgrounds of sound, — the surf, the wind in the forest, waterfalls, etc., — which yet to the ear and in their origin are essentially one voice, the earth-voice, the breathing or snoring of the creature. The earth is our ship, and this is the sound of the wind in her rigging as we sail. Just as the inhabitant of Cape Cod hears the surf ever breaking on its shores, so we countrymen hear this kindred surf on the leaves of the forest. Regarded as a voice, — though it is not articulate, —

as our articulate sounds are divided into vowels (but this is nearer a consonant sound), labials, dentals, palatals, sibilants, mutes, aspirate, etc., so this may be called *folial* or *frondal*, produced by air driven against the leaves, and comes nearest to our sibilants or aspirate.

The color of young oaks of different species is still distinct, but more faded and blended, becoming a more uniform brown. Michaux said that white oaks would be distinguished by their retaining their leaves in the winter, but as far as my observation goes they cannot be so distinguished. All our large oaks may retain a few leaves at the base of the lower limbs and about the trunks, though only a few, and the white oak scarcely more than the others, while the same trees when young are all alike thickly clothed in the winter, but the leaves of the white oaks are the most withered and shrivelled of them all.

Why do young oaks retain their leaves while old ones shed them? Why do they die on the stem, having some life at the base in the one case, while they wither through at the base in the other case? Is it because in the former case they have more sap and vigor?

There being some snow on the ground, I can easily distinguish the forest on the mountains (the Peterboro Hills, etc.) and tell which are forested, those parts and those mountains being dark like a shadow. I cannot distinguish the forest thus far in the summer.

The white pines, etc., as I look down on them from this hill, are now darker, as becomes the sterner season, like a frost-bitten apple, — a sombre green.

When I hear the hypercritical quarrelling about grammar and style, the position of the particles, etc., etc., stretching or contracting every speaker to certain rules of theirs, — Mr. Webster, perhaps, not having spoken according to Mr. Kirkham's rule, — I see that they forget that the first requisite and rule is that expression shall be vital and natural, as much as the voice of a brute or an interjection: first of all, mother tongue; and last of all, artificial or father tongue. Essentially your truest poetic sentence is as free and lawless as a lamb's bleat. The grammarian is often one who can neither cry nor laugh, yet thinks that he can express human emotions. So the posture-masters tell you how you shall walk, — turning your toes out, perhaps, excessively, — but so the beautiful walkers are not made.

Mediæval, or law, Latin seems to have invented the word "forest," not being satisfied with *silva*, *nemus*, etc. Webster makes it from the same root with "L. *foris*, Fr. *hors*, and the Saxon *faran*, to go, to depart." The allied words "all express distance from cities and civilization, and are from roots expressing departure or wandering," — as if this newer term were needed to describe those strange, wild woods furthest from the centres of civilization.

The earth, where quite bare, is now, and for five or six weeks, russet without any lively red, — not golden-russet.

I notice on the top of the Cliffs that the extremities of the smooth sumach are generally dead and withered, while those of the staghorn, which are so downy, are

alive. Is this a prevailing difference? Which extends furthest north?

The outside bark-scales of some large pitch pines in the midst of the woods having dropped off gives a peculiar flatness to the ridges, as if it had been shaved or scraped.

Minott says that a fox will lead a dog on to thin ice in order that he may get in. Tells of Jake Lakin losing a hound so, which went under the ice and was drowned below the Holt; was found afterward by Sted. Buttrick, his collar taken off and given to Lakin. They used to cross the river there on the ice, going to market, formerly.

Looking from the southwest side of Walden toward Heywood's Peak before sunset, the brown light on the oak leaves is almost dazzling.

Jan. 3. Having had rain within a few days on the four or five inches of snow there was, making slosh of it without melting the hard frozen ground, the slosh and surface water have now frozen, making it pretty good skating in the roads generally. I walked to Acton, but might have skated well half or two thirds the way.

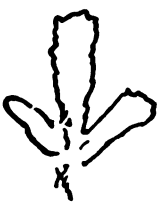
Many of the clusters of the smooth sumach are now a very dark crimson.

Jan. 4. A northeast snow-storm, or rather a north snow-storm, very hard to face. P. M. to Walden in it. It snows very hard, driving along almost horizontally, falling but a foot or two in a rod. Nobody is in the

street, or thinks of going out far except on important business. Most roads are trackless. The snow may be now fifteen to eighteen inches deep. As I go along the causeway, I find it is one thing to go south, or from the wind, another to face it. I can see through the storm a house or large tree only a quarter of a mile; beyond all is white falling snow. Woods and single trees seen through this air are all dark or black. The surface of the snow is in great waves whose ridges run from east to west, about a rod apart, or generally less, — say ten feet, — low and gentle swells. The small white pines stand thus, the lower branches loaded and bent down the ground, while the upper are commonly free and erect: —

But the pitch pines near Thrush Alley are the most interesting objects, for they hold much more snow. The snow lodges on their plumes, and, bending them down, it accumulates more and more on the angle generally at the base of the several plumes, in little conical heaps shaped somewhat like this: —

differing according to the number and position of the plumes. They look as if a child had stuck up its elbow under a white sheet. Some small ones stand stiffly upright like a soldier's plume. Several trees will be so fallen together and intermingled that you do not see them distinctly. At the same time the lowermost small black and dead horizontal limbs near the ground, where there is least wind and jar, — these almost exclusively, — say for six or eight feet up, are covered with upright walls of snow five or six times their own height and zigzagging with them like the Wall of China; or like great white caterpillars they lie along them, these snowy sloths; or rather it is a labyrinth, a sort of cobweb, of broad white belts in the air. Only a dim twilight struggles through to this lower region, and the sight of these snowy walls or labyrinths suggests a rare stillness, freedom from wind and jar. If you try to stoop and wind your way there, you get your neck and ears full of snow.



I can't draw it. That is, for each dead pine branch you have a thin flat branch of snow resting on it, an exaggeration of the former. It is a still white labyrinth of snowy purity, and you can look far into its recesses under the green and snowy canopy, — a labyrinth of which, perchance, a rabbit may have the clue. I noticed one pitch pine about three feet high so snowed up, and its branches all drooping, it looked like a draped statue or a white-ant hill.

In the woods the snow is often two feet deep, and you must walk at a very deliberate pace if you would keep it up. Still the withered hoary goldenrods (chiefly *S. nemoralis*) and asters (perhaps oftenest *A. dumosus*) rise above the snow here and there, — gray weeds, sufficiently dry and everlasting. The oak leaves, especially the black oak leaves, are very agreeable and wholesome colors. The deeper the snow, the more universal the whiteness, the more agreeable is this color.

Your breath causes the snow to turn to ice in your beard; a shaggy mass of icicles it becomes, which makes you look like a man from the extreme north.

When it grew late, the air being thick and unelastic in this storm, I mistook the distant sound of the locomotive whistle for the hoot of an owl. It was quite like it. I see, nevertheless, a few tree sparrows about, looking chubbier than ever, their feathers being puffed up, and flitting and twittering merrily along the fence.

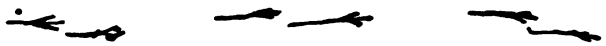
Turning north, the large rather moist flakes actually put out your eyes, and you must manage to look through the merest crack. Even in the midst of the storm I see where great clouds of fine snow roll down the wood-side,

the wind shaking the snow from the trees. It looks like the vapor from the locomotive.

Jan. 5. As I go over the causeway, near the railroad bridge, I hear a fine busy twitter, and, looking up, see a nuthatch hopping along and about a swamp white oak branch, inspecting every side of it, as readily hanging head-downwards as standing upright, and then it utters a distinct *gnah*, as if to attract a companion. Indeed, that other, finer twitter seemed designed to keep some companion in tow, or else it was like a very busy man talking to himself. The companion was a single chickadee, which lisped six or eight feet off. There were, perhaps, no other birds than these two within a quarter of a mile. And when the nuthatch flitted to another tree two rods off, the chickadee unfailingly followed.

Jan. 6. P. M. — To M. Miles's.

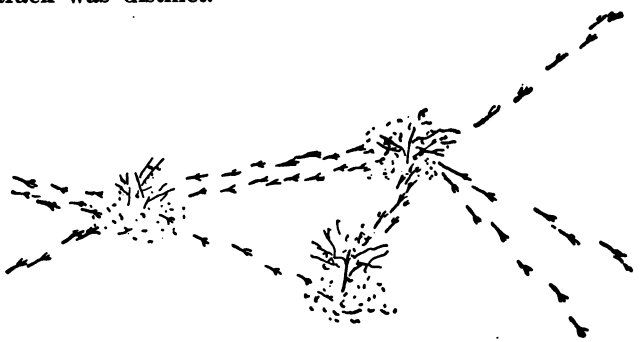
Near Nut Meadow Brook, on the Jimmy Miles road, I see a flock of snow buntings. They are feeding exclusively on that ragged weed which I take to be Roman wormwood.[1] Their tracks where they sink in the snow are very long, *i. e.*, have a very long heel, thus:



or sometimes almost in a single straight line. They made notes when they went, — sharp, rippling, like a vibrating spring. They had run about to every such such [*sic*], leaving distinct tracks raying from and to them, while the snow immediately about the weed was

[1] ["Which I take to be" is crossed out in pencil.]

so tracked and pecked where the seeds fell that no track was distinct.



And much more tracked up

Miles had hanging in his barn a little owl (*Strix Acadica*) which he caught alive with his hands about a week ago. He had forced it to eat, but it died. It was a funny little brown bird, spotted with white, seven and a half inches long to the end of the tail, or eight to the end of the claws, by nineteen in alar extent, — not so long by considerable as a robin, though much stouter. This one had three (not two)[1] *white* bars on its tail, but no noticeable white at the tip. Its cunning feet were feathered quite to the extremity of the toes, looking like whitish (or tawny-white) mice, or as when one pulls stockings over his boots. As usual, the white spots on the upper sides of the wings are smaller and a more distinct white, while those beneath are much larger, but a subdued, satiny white. Even a bird's wing has an upper and under side, and the last admits only of more subdued and tender colors.

[1] Nuttall says three.

Jan. 9. At sundown to Walden.

Standing on the middle of Walden I see with perfect distinctness the form and outlines of the low hills which surround it, though they are wooded, because they are quite white, being covered with snow, while the woods are for the most part bare or very thin-leaved. I see thus the outline of the hills eight or ten rods back through the trees. This I can never do in the summer,

when the leaves are thick and the ground is nearly the same color with them. These white hills are now seen as through a veil of stems. Immediately after the wood was cut off, this outline, of course, was visible at all seasons, but the wood, springing up again, concealed it, and now the snow has come to reveal the lost outline.

The sun has been set some minutes, and as I stand on the pond looking westward toward the twilight sky, a soft, satiny light is reflected from the ice in flakes here and there, like the light from the under side of a bird's wing. It is worth the while to stand here at this hour and look into the soft western sky, over the pines whose outlines are so rich and distinct against the clear sky. I am inclined to measure the angle at which [a] pine bough meets the stem. That soft, still, cream-colored sky seems the scene, the stage or field, for some rare drama to be acted on.

C. says the winter is the sabbath of the year. The perfect winter days are cold, but clear and bright.

Jan. 10. P. M. — Up Assabet to Sam Barrett's Pond.

Cold weather at last; — 8° this forenoon. This is much the coldest afternoon to bear as yet, but, cold as it is, — four or five below at 3 P. M., — I see, as I go round the Island, much vapor blowing from a bare space in the river just below, twenty rods off. I see, in the Island wood, where squirrels have dug up acorns in the snow, and frequently where they have eaten them on the trees and dropped the shells about on the snow.

Hemlock is still falling on the snow, like the pitch pine. The swamp white oaks apparently have fewer leaves — are less likely to have any leaves, even the small ones — than any oaks except the chinquapin, methinks. Here is a whole wood of them above Pinxter Swamp, which you may call bare.

Even the tawny (?) recent shoots of the black willow, when seen thickly and in the sun along the river, are a warm and interesting sight. These gleaming birch and alder and other twigs are a phenomenon still perfect, — that gossamer or cobweb-like reflection.

The middle of the river where narrow, as south side Willow Island, is lifted up into a ridge considerably higher than on the sides and cracked broadly.

The alder is one of the prettiest of trees and shrubs in the winter, it is evidently so full of life, with its conspicuous pretty red catkins dangling from it on all sides. It seems to dread the winter less than other plants. It has a certain heyday and cheery look, and less stiff than most, with more of the flexible grace of summer. With those dangling clusters of red catkins which it switches in

Alder Catkins in Winter

the face of winter, it brags for all vegetation. It is not daunted by the cold, but hangs gracefully still over the frozen stream.

At Sam Barrett's Pond, where Joe Brown is now getting his ice, I think I see about ten different freezings in ice some fifteen or more inches thick. Perhaps the successive cold nights might be discovered recorded in each cake of ice.

See, returning, amid the Roman wormwood in front of the Monroe place by the river, half a dozen goldfinches feeding just like the sparrows. How warm their yellow breasts look! They utter the goldfinches' watery twitter still.

I come across to the road south of the hill to see the pink on the snow-clad hill at sunset.

About half an hour before sunset this intensely clear cold evening (thermometer at five $-6°$), I observe all the sheets of ice (and they abound everywhere now in the fields), when I look from one side about at right angles with the sun's rays, reflect a green light. This is the case even when they are in the shade. I walk back and forth in the road waiting to see the pink. The windows on the skirts of the village reflect the setting sun with intense brilliancy, a dazzling glitter, it is so cold. Standing thus on one side of the hill, I begin to see a pink light reflected from the snow there about fifteen minutes before the sun sets. This gradually deepens to purple and violet in some places, and the pink is very distinct, especially when, after looking at the simply white snow on other sides, you turn your eyes to the hill. Even after all direct sunlight is withdrawn from the hill-

top, as well as from the valley in which you stand, you see, if you are prepared to discern it, a faint and delicate tinge of purple or violet there. This was in a very clear and cold evening when the thermometer was — 6°. This is one of the phenomena of the winter sunset, this distinct pink light reflected from the brows of snow-clad hills on one side of you as you are facing the sun.

The cold rapidly increases; it is — 14° in the evening.

I hear the ground crack with a very loud sound and a great jar in the evening and in the course of the night several times. It is once as loud and heavy as the explosion of the Acton powder-mills. This cracking is heard all over New England, at least, this night.

Jan. 11. At 6 A. M. — 22° and how much more I know not, ours having gone into the bulb; but that is said to be the lowest.

Going to Boston to-day, I find that the cracking of the ground last night is the subject of conversation in the cars, and that it was quite general. I see many cracks in Cambridge and Concord. It would appear then that the ground cracks on the advent of very severe cold weather. I had not heard it before, this winter. It was so when I went to Amherst a winter or two ago.

Jan. 12. Mr. Farmer brings me a hawk which he thinks has caught thirty or forty of his chickens since summer, for he has lost so many, and he has seen a hawk *like* this catch some of them. Thinks he has seen this same one sitting a long time upright on a tree, high

or low, about his premises, and when at length a hen or this year's chicken had strayed far from the rest, it skimmed along and picked her up without pausing, and bore her off, the chicken not having seen him approaching. He found this, caught by one leg and frozen to death, in a trap which he had set for mink by a spring and baited with fish.

This measures nineteen by forty-two inches and is, according to Wilson and Nuttall, a young *Falco lineatus*, or red-shouldered hawk. It might as well be called red or rusty breasted hawk.[1] Nuttall says it lives on frogs, crayfish, etc., and does not go far north, — not even to Massachusetts, he thought. Its note, *kee-oo*. He never saw one soar, at least in winter. According to all accounts Wilson's *Falco hyemalis* is the old of this bird, for there is a remarkable difference between old and young.

Mine agrees with Wilson's *F. lineatus*, or the young, except that the greater wing-coverts and secondaries are hardly what I should call "pale olive brown thickly spotted," etc., but rather dusky-brown, somewhat indistinctly barred with whitish (which is pure white on each edge of the feathers) and edged with rusty; that the shafts of the breast-feathers are only dark-brown; that the tail is not quite black, but very dark brown, and is not "broadly tipped" with white, but only with a quarter of an inch of it; vent not "pale ochre," but white; legs and feet hardly fine yellow, but dull greenish-yellow; femorals as bright rusty as the breast. It differs from Wilson's winter falcon, which is considered by Audubon and Brewer the same as the *lineatus*,

[1] According to *Birds of Long Island*, mine is the old bird (??).

in not having what I should call a "tooth in the upper mandible;" head, sides of neck, etc., hardly "streaked with white;" above, all primaries and exterior tail-feathers not "brownish orange," and tail not "barred alternately with dark and pale brown," its inner veins and coverts not "white;" and what is very important, the breast and beneath is not "white."

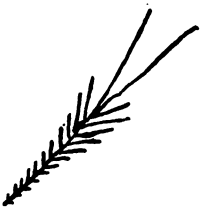
Since Nuttall makes it a southern bird, and it is not likely to come north in the winter, it would seem that it breeds here.

Farmer says that he saw what he calls the common hen-hawk, one soaring high with apparently a chicken in its claws, while a young hawk circled beneath, when former suddenly let drop the chicken, but the young failing to catch, he shot down like lightning and caught and bore off the falling chicken before it reached the earth.

Jan. 13. The cold spell is over, and here this morning is a fog or mist; the wind, if there is any, I think, northerly; and there is built out horizontally on the north side of every twig and other surface a very remarkable sort of hoar frost, the crystallized fog, which is still increasing. Mr. Edwin Morton was telling me night before last of a similar phenomenon witnessed in central New York, the fog of highlands or mountains crystallizing in this way and forming a white fringe or frost on the trees even to an inch and a half. This is already full an inch deep on many trees, and gets to be much more, perhaps an inch and a half even, on some in the course of the day. It is quite rare here, at least on

this scale. The mist lasts all this day, though it is far from warm (+ 11° at 8 A. M.), and till noon of the 14th, when it becomes rain, and all this time there is exceedingly little if any wind.

I go to the river this morning and walk up it to see the trees and bushes along it. As the frostwork (which is not thin and transparent like ice, but white and snow-like, or between the distinctly leaf with veins and a mere aggregation of snow, though you easily distinguish the distinct leaves) is built out northward from each surface, spreading at an angle of about forty-five degrees, *i. e.* some twenty-odd each side of the north, you must stand on the north side and look south at the trees, etc., when they appear, except the large limbs and trunk, wholly of snow or frostwork, mere ghosts of trees, seen softly against the mist for a background. It is mist on mist. The outline and character of each tree is more distinctly exhibited, being exaggerated, and you notice any peculiarity in the disposition of the twigs. Some elm twigs, thus enlarged into snowy fingers, are strikingly regular and handsome, thus:



In the case of most evergreens, it amounts to a very rich sugaring, being so firmly attached. The weeping willow seems to weep with more remarkable and regular curve than ever, and stands still and white with thickened twigs, as if carved in white marble or alabaster. Those trees, like alders, which have not

grown much the past year — which have short and angular twigs — are the richest in effect. The end of each alder twig is recurved where the drooping catkin is concealed. On one side you see the dark-brown fruit, but on the north that too is concealed.

I can see about a quarter of a mile through the mist, and when, later, it is somewhat thinner, the woods, the pine woods, at a distance are a dark-blue color.

Jan. 14. The fog-frosts and the fog continue, though considerable of the frostwork has fallen.

This forenoon I walk up the Assabet to see it. The hemlocks are perhaps a richer sight than any tree, — such Christmas trees, thus sugared, as were never seen. On [*sic*] side you see more or less greenness, but when you stand due north they are unexpectedly white and rich, so beautifully still, and when you look under them you see some great rock, or rocks, all hoary with the same, and a finer frost on the very fine dead hemlock twigs there and on hanging roots and twigs, quite like the cobwebs in a grist-mill covered with meal, — and it implies a stillness like that; or it is like the lightest down glued on. The birch, from its outline and its numerous twigs, is also one of the prettiest trees in this dress.

The fog turns to a fine rain at noon, and in the evening and night it produces a glaze, which this morning, —

Jan. 15, — is quite handsome. Instead of that soft, white, faery-like mantle of down with which the trees

were thickly powdered, they are now cased in a coat of mail, of icy mail, built out in many cases about as far from the twig with icy prominences. Birches, tree-tops, and especially slender-twigged willows or osiers are bent over by it, as they were not by the snow-white and light frost of yesterday and the day before, so that the character or expression of many trees and shrubs is wholly altered. I might not guess what the pollard willow row at Merrick's shore, with twigs one or two years old, was, — instead of

The fog still continues through, and succeeding to, the rain. The third day of fog. The thermometer at 7.30 or 8 A. M. is at 33°.

Jan. 16. P. M. — To Walden and thence *via* Cassandra Ponds to Fair Haven and down river.

There is still a good deal of ice on the north sides of woods and in and about the sheltered swamps. As we go southwestward through the cassandra hollows toward the declining sun,[1] they look successively, both by their form and color, like burnished silvery shields in the midst of which we walked, looking toward the sun. The whole surface of the snow the country over, and of the ice, as yesterday, is rough, as if composed of hailstones half melted together. This being the case, I noticed yesterday, when walking on the river, that where there was little or no snow and this rough sur-

[1] [Channing, p. 111.]

face was accordingly dark, you might have thought that the ice was covered with cinders, from the innumerable black points reflecting the dark water. My companion thought that cinders had fallen on that part of the ice.

The snow which three-quarters conceals the cassandra in these ponds, and every twig and trunk and blade of withered sedge, is thus covered or cased with ice, and accordingly, as I have said, when you go facing the sun, the hollows look like a glittering shield set round with brilliants.[1] That bent sedge in the midst of the shield, each particular blade of it being married to an icy wire twenty times its size at least, shines like polished silver rings or semicircles. It must have been far more splendid here yesterday, before any of the ice fell off. No wonder my English companion[2] says that our scenery is more spirited than that of England. The snow-crust is rough with the wreck of brilliants under the trees, — an inch or two thick with them under many trees, where they last several days.

When, this evening, I took a split hickory stick which was very slightly charred or scorched, but quite hot, out of my stove, I perceived a strong scent precisely like that of a burnt or roasted walnut, — as was natural enough.

Jan. 18. That wonderful frostwork of the 13th and 14th was too rare to be neglected, — succeeded as it

[1] [Channing, p. 111.]

[2] [Thomas Cholmondeley. In his letter of Jan. 19, 1859, to Mr. Blake, Thoreau says "Cholmondeley has been here again," etc. (*Familiar Letters*, p. 349; Riv. 406).]

was, also, by two days of glaze, — but, having company, I lost half the advantage of it. It was remarkable to have a fog for four days in midwinter without wind. We had just had sudden severe cold weather, and I suspect that the fog was occasioned by a warmer air, probably from the sea, coming into contact with our cold ice-and-snow-clad earth. The hoar frost formed of the fog was such a one as I do not remember on such a scale. Apparently as the fog was coarser and far more abundant, it was whiter, less delicate to examine, and of far greater depth than a frostwork formed of dew. We did not have an opportunity to see how it would look in the sun, but seen against the mist or fog it was too fair to be remembered. The trees were the ghosts of trees appearing in their winding-sheets, an intenser white against the comparatively dusky ground of the fog. I rode to Acton in the afternoon of the 13th, and I remember the wonderful avenue of these faery trees which everywhere overarched my road. The elms, from their form and size, were particularly beautiful. As far as I observed, the frostwork was deepest in the low grounds, especially on the *Salix alba* there. I learn from the papers that this phenomenon prevailed all over this part of the country and attracted the admiration of all. The trees on Boston Common were clad in the same snow-white livery with our Musketaquid trees.

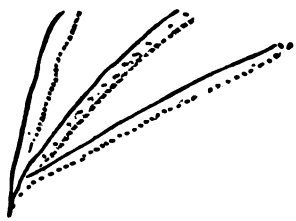
Perhaps the most unusual thing about this phenomenon was its duration. The air seemed almost perfectly still the first day, and I did not perceive that the frosting lost anything; nay, it evidently grew during the first

half of the day at least, for it was cold at the same time that it was foggy.

Every one, no doubt, has looked with delight, holding his face low, at that beautiful frostwork which so frequently in winter mornings is seen bristling about the throat of every breathing-hole in the earth's surface. In this case the fog, the earth's breath made visible, was in such abundance that it invested all our vales and hills, and the frostwork, accordingly, instead of being confined to the chinks and crannies of the earth, covered the mightiest trees, so that we, walking beneath them, had the same wonderful prospect and environment that an insect would have in the former case. We, going along our roads, had such a prospect as an insect would have making its way through a chink in the earth which was bristling with hoar frost.

That glaze! I know what it was by my own experience; it was the frozen breath of the earth upon its beard.

But to remember still that frostwork, I do not know why it should build out northward alone, while the twig is perfectly bare on the south side. Is not the phenomenon electrical? You might have guided yourself night or day by observing on which side the twigs it was. Closely examined, it is a coarse aggregation of thin flakes or leafets.



Looking from East or West

S
A
N

Cross-Section of a Twig

Standing a little east or west of an evergreen, you saw considerable of its greenness, especially the second day, when much had fallen; but in each case successively you were agreeably disappointed when you arrived exactly north of the tree and saw it to best advantage.

Take the most rigid tree, the whole effect is peculiarly soft and spirit-like, for there is no marked edge or outline. How could you draw the outline of these snowy fingers seen against the fog, without exaggeration? There is no more a boundary-line or circumference that can be drawn, than a diameter. Hardly could the New England farmer drive to market under these trees without feeling that his sense of beauty was addressed. He would be aware that the phenomenon called beauty was become visible, if one were at leisure or had had the right culture to appreciate it. A miller with whom I rode actually remarked on the beauty of the trees; and a farmer told me in all sincerity that, having occasion to go into Walden Woods in his sleigh, he thought he never saw anything so beautiful in all his life, and if there had been men there who knew how to write about it, it would have been a great occasion for them.

Many times I thought that if the particular tree, commonly an elm, under which I was walking or riding were the only one like it in the country, it would [be] worth a journey across the continent to see it. Indeed, I have no doubt that such journeys would be undertaken on hearing a true account of it. But, instead of being confined to a single tree, this wonder was as

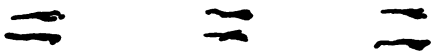
cheap and common as the air itself. Every man's woodlot was a miracle and surprise to him, and for those who could not go so far there were the trees in the street and the weeds in the yard. It was much like (in effect) that snow that lodges on the fine dead twigs on the lower part of a pine wood, resting there in the twilight commonly only till it has done snowing and the wind arises. But in this case it did not rest *on* the twig, but grew out from it horizontally, and it was not confined to the lowest twigs, but covered the whole forest and every surface.

Looking down the street, you might say that the scene differed from the ordinary one as frosted cake differs from plain bread. In some moods you might suspect that it was the work of enchantment. Some magician had put your village into a crucible and it had crystallized thus. The weeping willow, with its thickened twigs, seemed more precise and regularly curved than ever, and as still as if it were carved of alabaster. The maples, with their few long shoots, were rather set and still. It was remarkable that when the fog was a little thinner, so that you could see the pine woods a mile or more off, they were a distinct dark blue. If any tree is set and stiff, it was now more stiff, if airy and graceful, it was now more graceful. The birches especially were a great ornament. As usual in the winter, where a rock rises above the ice it was a mere hillock covered with a white counterpane, and often where one end, perhaps the higher, of the rock was bare on one side it looked like a seal or walrus slowly lifting itself above the surface, or resting there. One

suggested a bonfire under the elms in the street at night.

P. M. — Up Assabet to bridge.

Two or more inches of snow fell last night. In the expanse this side Mantatuket Rock I see the tracks of a crow or crows in and about the button-bushes and willows. They have trampled and pecked much in some spots under the button-bushes where these seeds are still left and dibbled into the snow by them. It would seem, then, that they eat them. The only other seeds there can be there are those of the mikania, for I look for them. You will see a crow's track beginning in the middle of the river, where one alighted. I notice such a track as this, where one alighted, and apparently struck its spread tail into the snow at the same time with its feet. I see afterward where a wing's quills have marked the snow much like a partridge's. The snow is very light, so that the tracks are rarely distinct, and as they often advance by hops some might mistake it for a squirrel's or mink's track. I suspect that they came here yesterday after minnows when the fishermen were gone, and that has brought them here to-day in spite of the snow. They evidently look out sharp for a morsel of fish. I see where, by the red maple above Pinxter Swamp, they have picked over the fine dark-greenish moss from button-bush, and the leaves which had formed a squirrel's nest, knocking it down on to the river and there



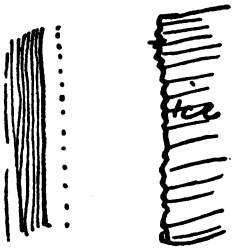
treading about and pecking a small piece, apparently for some worms or insects that were in it, as if they were hard pushed.

I am pretty sure to find tracks under the last-named bank, in the edge of the low swamp white oak wood, either of rabbits or mice, crows or fox. The two former generally keep close under the bank, as the safest beat for them, but sometimes I see where they hopped across the river several times last night, and I can imagine how shyly they looked back from the opposite side. The mice occasionally hop out a rod and back, making a semicircle; more rarely quite across.

In my walk of the 16th, I noticed that almost all the way after leaving the railroad till I reached the highway near Hubbard's Bridge I was on the track of a fox. My beat was nearly identical with its (or there may have been several), — lengthwise through the Cassandra Ponds and Hollows by the lowest and most open path, along the narrow grown-up hillside path to Pleasant Meadow, and just along the edge of the button-bushes, visiting every musquash-house, and crossing the river from time to time.

I notice in midstream, opposite the cooper's shore, where an opening has been made for ice, some eighteen feet square, and has not frozen over again, but the water is seen passing with a swift current and disappearing quickly under the thin edge of the newly formed ice. I notice one of those fine unaccountable cobweb-like lines, nearly straight though undulating, stretched from side to side of this opening, about eight inches from the edge of the ice on the lower side. It looked

at first as if the water, compared with the ice, was higher, in fact heaped up at that point on account of the obstruction which the lower side offered, and that it then suddenly descended and passed under the thin edge of the newly formed ice! The ridge of the watery dam was a narrow light line, and there were on the upper side, parallel with it, eight or ten other light lines or ripples alternating with dark within the breadth of three or four inches, growing less and less distinct; and on the lower side there was a sudden slope (apparently to the level of the water below) about one inch wide. It was remarkable that the current and all that it carried with it passed incessantly through and over these lines without in the least disturbing them, or rather breaking them, only producing that slight undulation. I describe it as it appears.



Of the large black oaks on the north bank near Prescott Barrett's, some are quite bare, others have about as many leaves on their lower parts as a white oak. The swamp white oaks opposite are all bare. I notice in two places where a musquash has been out on the snow-covered ice, and has travelled about a rod or less, leaving the sharp mark of its tail.

To-day, an average winter day, I notice no vapor over the open part of the river below the Island, as I did the very cold afternoon of the 10th. The air and water are probably now too nearly of the same temperature. That, then, in the winter, is a phenomenon of very cold weather.

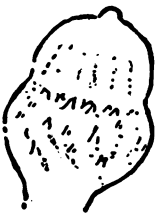
Jan. 19. *Wednesday.* P. M. — To Great Meadows *via* Sleepy Hollow.

It is a remarkably warm, still, and pleasant afternoon for winter, and the wind, as I discover by my handkerchief, southwesterly. I noticed last night, just after sunset, a sheet of mackerel sky far in the west horizon, very finely imbricated and reflecting a coppery glow, and again I saw still more of it in the east this morning at sunrise, and now, at 3.30 P. M., looking up, I perceive that almost the entire heavens are covered with a very beautiful mackerel sky. This indicates a peculiar state of the atmosphere. The sky is most wonderfully and beautifully mottled with evenly distributed cloudlets, of indescribable variety yet regularity in their form, suggesting fishes' scales, with perhaps small fish-bones thrown in here and there. It is white in the midst, or most prominent part, of the scales, passing into blue in the crannies. Something like this blue and white mottling, methinks, is seen on a mackerel, and has suggested the name.[1] Is not the peculiar propriety of this term lost sight of by the meteorologists? It is a luxury for the eye to rest on it. What curtains, what tapestry to our halls! Directly overhead, of course, the scales or cloudlets appear large and coarse, while far on one side toward the horizon they appear very fine. It is as if we were marching to battle with a shield, a testudo, over our heads. I thus see a *flock* of small clouds, like sheep, some twenty miles in diameter, distributed with wonderful regularity. But they are being steadily driven to

[1] *Vide* Feb. 28, 1859.

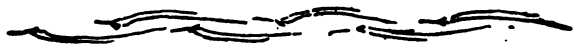
some new pasture, for when I look up an hour afterward not one is to be seen and [the] sky is beautifully clear. The form of these cloudlets is, by the way, like or akin to that of waves, of ripple-marks on sand, of small drifts, wave-like, on the surface of snow, and to the first small openings in the ice of the midstream.

I look at a few scarlet and black oaks this afternoon. Our largest scarlet oak (by the Hollow), some three feet [in] diameter at three feet from ground, has more leaves than the large white oak close by (which has more than white oaks generally). As far as I observe to-day, the scarlet oak has more leaves now than the black oak. Gathered a scarlet oak acorn of this form, and with distinct fine dark stripes or rays, such as a *Quercus ilicifolia* has.



By the swamp between the Hollow and Peter's I see the tracks of a crow or crows, chiefly in the snow, two or more inches deep, on a broad frozen ditch where mud has been taken out. The perpendicular sides of the ditch expose a foot or two of dark, sooty mud which had attracted the crows, and I see where they have walked along beneath it and pecked it. Even here also they have alighted on any bare spot where a foot of stubble was visible, or even a rock. Where one walked yesterday, I see, notwithstanding the effect of the sun on it, not only the foot-tracks, but the distinct impression of its tail where it alighted, counting distinctly eleven (of probably twelve) feathers, — about four inches of each, — the whole mark being some ten inches wide and six deep, or more like a semicircle than that of yester-

day. The same crow, or one of the same, has come again to-day, and, the snow being sticky this warm weather, has left a very distinct track. The width of the whole track is about two and three quarters inches, length of pace about seven inches, length of true track some two inches (not including the nails), but the mark made in setting down the foot and withdrawing it is in each case some fifteen or eighteen inches long, for its hind toe makes a sharp scratch four or five inches long before it settles, and when it lifts its foot again, it makes two other fine scratches with its middle and outer toe on each side, the first some nine inches long, the second six. The inner toe is commonly close to the middle one. It makes a peculiar curving track (or succession of curves), stepping round the planted foot each time with a sweep, thus:—



You would say that it toed in decidedly and walked feebly. It must be that they require but little and glean that very assiduously.

The sweet-fern retains its serrate terminal leaves.

Walking along the river eastward, I notice that the twigs of the black willow, many of which were broken off by the late glaze, only break at base, and only an inch higher up bend without breaking.

I look down the whole length of the meadows to Ball's Hill, etc. In a still, warm winter day like this, what warmth in the withered oak leaves, thus far away, mingled with pines! They are the redder for the warmth and the sun. At this season we do not want any more color.

A mile off I see the pickerel-fisher returning from the Holt, taking his way across the frozen meadows before sunset toward his hut on the distant bank. I know him (looking with my glass) by the axe over his shoulder, with his basket of fish and fish-lines hung on it, and the tin pail of minnows in his hand. The pail shines brightly more than a mile off, reflecting the setting sun. He starts early, knowing how quickly the sun goes down.

To-night I notice, this warm evening, that there is most green in the ice when I go directly from the sun. There is also considerable when I go directly toward it, but more than that a little one side; but when I look at right angles with the sun, I see none at all. The water (where open) is also green. I see a rosy tinge like dust on the snow when I look directly toward the setting sun, but very little on the hills. Methinks this pink on snow (as well as blue shadows) requires a clear, cold evening. At least such were the two evenings on which I saw it this winter.

Coming up the street in the twilight, it occurs to me that I know of no more agreeable object to bound our view, looking outward through the vista of our elm-lined streets, than the pyramidal tops of a white pine forest in the horizon. Let them stand so near at least.

Jan. 20. A second remarkably pleasant day like the last.

P. M. — Up river.

I see a large white oak perfectly bare.

Among four or five pickerel in a "well" on the river,

I see one with distinct transverse bars as I look down on its back, — not quite across the back, but plain as they spring from the side of the back, — while all the others are uniformly dark above. Is not the former *Esox fasciatus?* There is no marked difference when I look at them on their sides.

I see in various places on the ice and snow, this very warm and pleasant afternoon, a kind of mosquito perhaps, a feeble flyer, commonly resting on the ice.

The green of the ice and water begins to be visible about half an hour before sunset. Is it produced by the reflected blue of the sky mingling with the yellow or pink of the setting sun?

What a singular element is this water! I go shaking the river from side to side at each step, as I see by its motion at the few holes.

I learn from J. Farmer that he saw to-day in his woodlot, on removing the bark of a dead white pine, an immense quantity of mosquitoes, moving but little, in a cavity between the bark and the wood made probably by some other insect. These were probably like mine. There were also wasps and what he calls lightning-bugs there.

Jan. 21. A January thaw, with some fog, occasioned as yet wholly by warm weather, without rain; high wind in the night; wind still south. The last two days have been remarkably pleasant and warm, with a southerly wind, and last night was apparently warmer yet (I think it was 46° this morning); and this morning I am surprised to see much bare ground and ice where

was snow last evening, and though last evening it was good sleighing and the street was not wet at all, — though the snow was moist, — now it is almost entirely bare ice except for the water. The sluices are more than full, rushing like mill-streams on each side the way and often stretching in broad lakes across the street. It is the worst or wettest of walking, requiring india-rubber boots. Great channels, eight inches deep and a foot or more wide, are worn in the ice across the street, revealing a pure, clear ice on the sides, contrasting with the dirty surface. I do not remember so sudden a change, the effect of warmth without rain. Yesterday afternoon it was safe sledding wood along the riverside on the ice, — Hubbard was doing so, — and I saw at the bridges that the river was some eight inches lower than it had been when it froze, the ice adhering to the piers, and all held up there so much higher than the surrounding surface; and now it is rapidly rising, and the river is forbidden ground.

It is surprising how suddenly the slumbering snow has been melted, and with what a rush it now seeks the lowest ground on all sides. Yesterday, in the streets and fields, it was all snow and ice and rest; now it is chiefly water and motion. Yesterday afternoon I walked in the merely moist snow-track of sleds and sleighs, while all the sides of the road and the ditches rested under a white mantle of snow. This morning I go picking my way in rubbers through broad puddles on a slippery icy bottom, stepping over small torrents which have worn channels six or eight inches deep, and on each side rushes past with a loud murmur a stream large enough

to turn a mill, occasionally spreading out into a sizable mill-pond.

It begins to rain by afternoon, and rains more or less during the night. Before night I heard of the river being over the road in one place, though it was rather low before. Saw Melvin buying an extra quantity of shot in anticipation of the freshet and musquash-shooting tomorrow.

Jan. 22. Apparently the wind south two or three days or thermometer so long above 40° will make a freshet, if there is snow enough on the ground.

8.30 A. M. — Go to the riverside.

It is over the meadows. Hear Melvin's gun. The thick white ice is seen lifted up and resting over the channel several rods from the present shore on the high bank side.

As I stand there looking out to that white ice, about four rods distant (at my boat's place), I notice countless narrow light lines, a third of an inch wide, in or on the very thin, dark, half-cemented ice (hardly so thick as pasteboard) which has formed since midnight on the surface of the risen water between the old ice and the shore. At first I thought that these light lines were cracks in that thin ice or crystallization (it is now 34°), occasioned, perhaps, by the mere rising of the water. But observing that some of them were peculiarly meandering, returning on themselves loopwise, I looked at them more attentively, and at length I detected at the inner end of one such line a small black speck about a rod from me. Suspecting this to be a caterpillar, I took steps to ascer-

tain if it were, at any rate, a living creature, by discovering if it were in motion. It appeared to me to move, but it was so slowly that I could not be certain until I set up a stick on the shore or referred it to a fixed point on the ice, when I was convinced that it was a caterpillar slowly crawling toward the shore, or rather to the willows. Following its trail back with my eye, I found that it came pretty directly from the edge of the old or thick white ice (*i. e.* from where the surface of the flood touched its sloping surface) toward the willows, from northeast to southwest, and had come about three rods. Looking more sharply still, I detected seven or eight such caterpillars within a couple of square rods on this crystallization, each at the end of its trail and headed toward the willows in exactly the same direction. And there were the distinct trails of a great many more which had reached the willows or disappeared elsewhere. These trails were particularly distinct when I squatted low and looked over the ice, reflecting more light then. They were generally pretty direct toward the shore, or toward any clump of willows if within four or five rods. I saw one which led to the willows from the old ice some six rods off. Slowly as they crawled, this journey must have been made within a few hours, for undoubtedly this ice was formed since midnight. Many of the lines were very meandering, like this: —

and apparently began and ended within the thin ice. There was not enough ice to support even a caterpillar

within three or four feet of the shore, for the water was still rapidly rising and not now freezing, and I noticed no caterpillars on the ice within several feet, but with a long stick I obtained quite a number. Among them were three kinds. Probably the commonest were, first, a small flat (beneath) black one with a dark shell head and body consisting of numerous rings, like dark velvet, four or five eighths of an inch long;[1] second, a black caterpillar about same length, covered with hairy points or tufts, (remind me somewhat of that kind I see on the black willows, which is larger and partly yellow); thirdly, one all brown fuzzy and six or seven eighths of an inch long. The last lay at the bottom, but was alive. All curled up when I rescued them.

There were also many small brown grasshoppers (not to mention spiders of various sizes and snow-fleas) on the ice, but none of these left any perceptible track.

These tracks, thus distinct, were quite innumerable, — there was certainly one for each foot of shore, — many thousands (?) within half a dozen rods, — leading commonly from the channel ice to or toward the shore or a tree, but sometimes wandering parallel to the shore. Yet comparatively few of the caterpillars were now to be seen. You would hardly believe that there had been caterpillars enough there to leave all these trails within so short a time.

It may be a question how did they come on the channel ice. I answer that they were evidently drowned out of the meadow-grass by the rise of the water, *i. e.*, if

[1] *Vide* [p. 442].

there is sufficient thaw to lay the ground bare (as the musquash are, which I now hear one shooting from a boat), and that they either swam or were washed on to that channel ice by the rising water (while probably others were washed yet higher up the bank or meadow and were not obliged to make this journey?), and so, as soon as the water froze hard enough to bear, they commenced their slow journey toward the shore, or any other dark terrestrial-looking object, like a tree, within half a dozen rods. At first I thought they left a trail because the ice was so very thin and watery, but perhaps the very slight snow that whitened the ground a little had melted on it. Possibly some were washed from adjacent fields and meadows into the river, for there has been a great wash, a torrent of water has rushed downward over these fields to the river. There was, perhaps, a current setting from the shore toward the middle, which floated them out. How is it when a river is rising?

At any rate, within twenty-four hours this freshet has invaded the Broadways or lower streets of the caterpillar towns, and, within some six hours probably, these innumerable journeys have been performed by wrecked caterpillars over a newly formed ice-bridge, — more such adventurers in our town alone than there are human beings in the United States, — and their trails are there to be seen, every one of them. Undespairing caterpillars, determined to reach the shore. What risks they run who go to sleep for the winter in our river meadows!

Perhaps the insects come up from their winter re-

treats in the roots of the grass in such warm and sunny days as we have had, and so are the more washed away, and also become food for crows, which, as I noticed, explore the smallest bare tufts in the fields.

I notice where a musquash has lately swam under this thin ice, breaking it here and there, and his course for many rods is betrayed by a continuous row of numerous white bubbles as big as a ninepence under the ice. J. Farmer tells me that he once saw a musquash rest three or four minutes under the ice with his nose against the ice in a bubble of air about an inch in diameter, and he thinks that they can draw air through the ice, and that one could swim across Nagog Pond under the ice.

I think that the greater part of the caterpillars reaching the few feet of open water next the shore must sink to the bottom, and perhaps they survive in the grass there. A few may crawl up the trees. One which I took off the bottom was alive.

A freshet, then, even in midwinter, is a most momentous event to the insect world.

Perhaps the caterpillars, being in the water, are not frozen in, but crawl out on the ice and steer for the land from wherever they may be. Apparently those which started from the edge of the channel ice must have been drifted there either by the current or wind, because they could not have risen directly up to it from the bottom, since it slopes toward the shore for a rod under water. It is remarkable that the caterpillars know enough to steer for the shore, though four or five rods off.

I notice that, the river thus breaking up in this freshet, this body of ice over the channel cracks on each side near the line of the willows, a little outside of them, two great rents showing the edge and thickness of the ice, making many a jounce or thankee-marm for the skater when all is frozen again, while between them the ice of the channel is lifted up level, while outside these rents the ice slopes downward for a rod, the shore edge still fastened to the bottom; *i. e.*, the fuller tide, rushing downward, lifts up the main body of the ice, cracking it on each side of the channel, the outside strips remaining attached to the bottom by their shore edges and sloping upward to the rents, so that the freshet runs through, and nearly overflows these two strips, creeping far up the bank or over the meadows on each side.

P. M. — I see many caterpillars on the ice still, and those glow-worm-like ones. I see several of the black fuzzy (with distinct tufts) caterpillars described above, on the open water next the shore, but none of them is moving; also, in the water, common small black crickets (one alive) and other bugs (commonly alive), which have been washed out of their winter quarters. And in the fields generally, exposed on bare, hard ice, the snow being gone and more than half the earth bare, are a great many caterpillars (still two other kinds than yet described), many naked and fishworm-color, four to six inches long, and those glow-worm-like ones (some more brown). They have evidently been washed out of their retreats in the grass by the great flow of water, and left on the ice. They must afford abundant food [for] birds.

Crows which fared hard ten days ago must fare sumptuously now. This will account for their tracks which I saw the other day leading to every little bare strip [?] or exposed tuft of grass, — those warm days. Perhaps the caterpillars, etc., crawl forth in sunny and warm days in midwinter when the earth is bare, and so supply the birds, and are ready to be washed away by a flow of water! I find thus a great variety of living insects now washed out. Four kinds of caterpillars, and also the glow-worm-like creature so common, grasshoppers, crickets, and many bugs, not to mention the mosquito-like insects which the warm weather has called forth (flying feebly just over the ice and snow a foot or two), spiders, and snow-fleas. A sudden thaw is, then, a great relief to crows and other birds that may have been put to it for food. Their larders are now overstocked.

Can that glow-worm-like creature, so common on the ice by the riverside and in the fields now, be the female of the lightning-bug? It is about half an inch long by one eleventh of an inch wide, dusky reddish-brown above, lighter beneath, with a small black flattish head and about four short antennæ, six legs under the forward part of the body, which last consists of twelve ring-like segments. There is one row of minute light-colored dots down the middle of the back, and perhaps (?) others, fainter, on the side.

Many are out in boats, steering outside the ice of the river over the newly flooded meadows, shooting musquash. Cocks crow as in spring.

The energy and excitement of the musquash-hunter even, not despairing of life, but keeping the same rank

and savage hold on it that his predecessors have for so many generations, while so many are sick and despairing, even this is inspiriting to me. Even these deeds of death are interesting as evidences of life, for life will still prevail in spite of all accidents. I have a certain faith that even musquash are immortal and not born to be killed by Melvin's double-B (?) shot.

Methinks the breadth of waves, whether in water or snow or sand or vapor (in the mackerel sky), is determined generally by the force of the wind or other current striking the water, etc. It depends on how much water, etc., the wind has power to displace.

The musquash-hunter (last night), with his increased supply of powder and shot and boat turned up somewhere on the bank, now that the river is rapidly rising, dreaming of his exploits to-day in shooting musquash, of the great pile of dead rats that will weigh down his boat before night, when he will return wet and weary and weather-beaten to his hut with an appetite for his supper and for much sluggish (punky) social intercourse with his fellows, — even he, dark, dull, and battered flint as he is, is an inspired man to his extent now, perhaps the most inspired by this freshet of any, and the Musketaquid Meadows cannot spare him. There are poets of all kinds and degrees, little known to each other. The Lake School is not the only or the principal one. They love various things. Some love beauty, and some love rum. Some go to Rome, and some go a-fishing, and are sent to the house of correction once a month. They keep up their fires by means unknown to me. I know not their comings and goings.

How can I tell what violets they watch for? I know them wild and ready to risk all when their muse invites. The most sluggish will be up early enough then, and face any amount of wet and cold. I meet these gods of the river and woods with sparkling faces (like Apollo's) late from the house of correction, it may be carrying whatever mystic and forbidden bottles or other vessels concealed, while the dull regular priests are steering their parish rafts in a prose mood. What care I to see galleries full of representatives of heathen gods, when I can see natural living ones by an infinitely superior artist, without perspective tube? If you read the Rig Veda, oldest of books, as it were, describing a very primitive people and condition of things, you hear in their prayers of a still older, more primitive and aboriginal race in their midst and round about, warring on them and seizing their flocks and herds, infesting their pastures. Thus is it in another sense in all communities, and hence the prisons and police.

I hear these guns going to-day, and I must confess they are to me a springlike and exhilarating sound, like the cock-crowing, though each one may report the death of a musquash. This, methinks, or the like of this, with whatever mixture of dross, is the real morning or evening hymn that goes up from these vales to-day, and which the stars echo. This is the best sort of glorifying of God and enjoying him that at all prevails here to-day, without any clarified butter or sacred ladles.

As a mother loves to see her child imbibe nourishment and expand, so God loves to see his children thrive on the nutriment he has furnished them. In the

musquash-hunters I see the Almouchicois still pushing swiftly over the dark stream in their canoes. These aboriginal men cannot be repressed, but under some guise or other they survive and reappear continually. Just as simply as the crow picks up the worms which all over the fields have been washed out by the thaw, these men pick up the musquash that have been washed out the banks. And to serve such ends men plow and sail, and powder and shot are made, and the grocer exists to retail them, though he may think himself much more the deacon of some church.

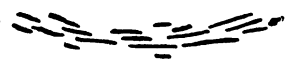
From year to year the snow has its regular retreat and lurking-places when a thaw comes (laying bare the earth), under the southeastward banks. I see it now resting there in broad white lines and deep drifts (from my window), as I have seen it for many years, — as it lay when the Indian was the only man here to see it.

Jan. 23. The freshet is now frozen over, but not thick enough to bear without cracking, and that peculiar whitish ice like bread or mortar that has run over is seen four to six feet in width all along the shore and about trees, posts, rocks, etc. It is produced by the water, probably, still rising after the freezing in the night and flowing back over the ice in a semiliquid state, or like soft solder, — a rough or wrinkled or rippled dirty-white surface, often stained with the bank, yellowish or brown.

There is a cold northwest wind, and I notice that the snow-fleas which were so abundant on this water

yesterday have hopped to some lee, *i. e.*, are collected like powder under the southeast side of posts or trees or sticks or ridges in the ice. You are surprised to see that they manage to get out of the wind. On the southeast side of every such barrier along the shore there is a dark line or heap of them. I see one of those glow-worm-like creatures frozen in, sticking up perpendicular, half above the ice.

Going over the Hosmer pasture this side Clamshell southwestward, I thought I saw much gossamer on the grass, but was surprised to find that it was the light reflected from the withered grass stems which had been bent or broken by the snow (now melted). It looked just like gossamer even within ten [?] feet, — most would have taken it for that, — also these fine gleaming lines (like those of the alders and birch twigs, etc.) were very distinctly parts of an arc of a large circle, — the lower side of it, — as you looked toward the sun, the light being necessarily so reflected. This is a remarkable instance



of the November, or rather winter, light reflected from twigs and stubble. The grass stood thus: —

It was just like an abundant gossamer.

The earth being generally bare, I notice on the ice where it slopes up eastward a little, a distinct rosy light (or pink) reflected from it generally, half an hour before sunset. This is a colder evening than of late, and there is so much the more of it.

Jan. 24. An abundance of excellent skating, the freshet that covered the meadows being frozen. Many boys and girls are skating on Mantatuket Meadow and on Merrick's. Looking from this shore, they appear decidedly elevated, — not by their skates merely. What is the cause? Do we take the ice to be air?

I see an abundance of caterpillars of various kinds on the ice of the meadows, many of those large, dark, hairy, with longitudinal light stripes, somewhat like the common apple one. Many of them are frozen in yet, some for two thirds their length, yet all are alive. Yet it has been so cold since the rise that you can now cross the channel almost anywhere. I also see a great many of those little brown grasshoppers and one perfectly green one, some of them frozen in, but generally on the surface, showing no signs of life; yet when I brought them home to experiment on, I found them all alive and kicking in my pocket. There were also a small kind of reddish wasp, quite lively, on the ice, and other insects; those naked, or smooth, worms or caterpillars. This shows what insects have their winter quarters in the meadow-grass. This ice is a good field for an entomologist.

I experimented on the large bubbles under the ice. Some, the oldest and nearest the surface, were white; others, the newest and against the present under surface, were of a bluish or slate color, more transparent. I found that the whiteness of the first was owing to the great quantity of little bubbles above and below the great one produced by the heat of this "burning-glass," while those of recent formation have not had time to

accomplish this. When I cut through with my knife an inch or two to one of the latter kind, making a very slight opening, the confined air, pressed by the water, burst up with a considerable hissing sound, sometimes spurting a little water with it, and thus the bubble was contracted, almost annihilated; but frequently, when I cut into one of the old or white ones, there was no sound, the air did not rush out because there was no pressure, there being ice below as well as above it; but when I also pierced the lower ice it did rush out with a sound like the others.

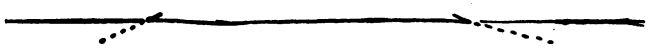
My object at first was to ascertain if both kinds of bubbles contained air. But that was plain enough, for when the water rushed in the bluish, or new, ones wholly beneath the ice wholly or nearly disappeared, while the white ones, giving place to water, were no longer white. It would seem, then, that a considerable pressure, such as the water exerts on an air-bubble under the ice, does not force it through the ice, certainly not for a considerable time. How, then, can the musquash draw air through the ice as is asserted? He might, however, come to breathe in such a bubble as this already existing.

The larger spiders generally rest on the ice with all their legs spread, but on being touched they gather them up.

Jan. 25. The river has gone down about eight inches, and the ice still adhering to the shore all about the meadows slants downward for some four or five feet till it meets the water, and it is there cracked, often

letting the water up to overflow it, so that it is hard to get off and on in some places.

That channel ice of the 22d (*q. v.*), lifted up, looks thin, thus:—



The edges of the outside portions are more lifted up now, apparently by the weight of the water on them.

Jan. 26. P. M. — Over Cyanean Meadow on ice. These are remarkably warm and pleasant days. The water is going down, and the ice is rotting. I see some insects — those glow-worm-like ones — sunk half an inch or more into the ice by absorbed heat and yet quite alive in these little holes, in which they alternately freeze and thaw. At Willow Bay I see for many rods black soil a quarter of an inch deep, covering and concealing the ice (for several rods). This, I find, was blown some time ago from a plowed field twenty or more rods distant. This shows how much the sediment of the river may be increased by dust blown into it from the neighboring fields. Any ice begins immediately after it is formed to look dusty in the sun anywhere. This black soil is rapidly sinking to the bottom through the ice, by absorbing heat, and, water overflowing and freezing, it is left deep within thick ice. Or else, lying in wavelets on the ice, the surface becomes at last full of dark-bottomed holes alternating with clear ice.

The ice, having fairly begun to decompose, is very

handsomely marked, more or less internally as it appears, with a sort of graphic character, or bird-tracks, very agreeable and varied. It appears to be the skeleton of the ice revealed, the original crystals (such as we see shoot on very thin ice just beginning) revealed by the rotting. Thus the peculiar knotty grain or knurliness of the ice is shown, — white marks on dark. These white waving lines within it look sometimes just like some white, shaggy wolf-skin.

The meadow which makes up between Hubbard's mainland and his swamp wood is very handsomely marked, or marbled, with alternate white and dark ice. The upper surface appears to be of one color and consistency, like a hard enamel, but very interesting white figures are seen through it.

What various kinds of ice there are! This which lately formed so suddenly on the flooded meadows, from beneath which the water has in a great measure run out, letting it down, while a warm sun has shone on it, is perhaps the most interesting of any. It might be called graphic ice.

It is a very pleasant and warm day, and when I came down to the river and looked off to Merrick's pasture, the osiers there shone as brightly as in spring, showing that their brightness depends on the sun and air rather than the season.

Jan. 27. I see some of those little cells, perhaps, of a wasp or bee, made of clay or clayey mud. It suggests that these insects were the first potters. They look somewhat like small stone jugs.

Jan. 28. Melvin tells me that one with whom he deals below says that the best musquash skins come from Concord River, and it is because our musquash are so fat. M. says that they eat apples, and he has seen where they have eaten acorns, and Isaiah Green told him and convinced him that they ate his seed-corn in the hill. He weighed a very large one the other day, and it weighed five pounds. Thinks they would not commonly weigh more than three.

When you have been deprived of your usual quantity of sleep for several nights, you sleep much more soundly for it, and wake up suddenly like a bullet that strikes a wall.

Jan. 30. How peculiar the hooting of an owl! It is not shrill and sharp like the scream of a hawk, but full, round, and sonorous, waking the echoes of the wood.

The surface of the snow, especially on hillsides, has a peculiarly combed or worn appearance where water has run in a thaw; *i. e.*, the whole surface shows regular furrows at a distance, as if it had been scraped with an immense comb.

Jan. 31. P. M. — Up river across Cyanean Meadow.

Now we have quite another kind of ice. It has rained hard, converting into a very thin liquid the snow which had fallen on the old ice, and this, having frozen, has made a perfectly smooth but white snow ice. It is white like polished marble (I call it marble ice), and the trees and hill are reflected in it, as not in the other. It is far

less varied than the other, but still is very peculiar and interesting. You notice the polished surface much more, as if it were the marble floor of some stupendous hall. Yet such is its composition it is not quite so hard and metallic, I think. The skater probably makes more of a scratch. The other was hard and crystalline.

As I look south just before sunset, over this fresh and shining ice, I notice that its surface is divided, as it were, into a great many contiguous tables in different planes, somewhat like so many different facets of a polyhedron as large as the earth itself. These tables or planes are bounded by cracks, though without any appreciable opening, and the different levels are betrayed by the reflections of the light or sky being interrupted at the cracks. The ice formed last night is a day old, and these cracks, as I find, run generally from northeast to southwest across the entire meadow, some twenty-five or thirty rods, nearly at right angles with the river, and are from five to fifteen feet apart, while there are comparatively few cracks crossing them in the other direction. You notice this phenomenon looking over the ice some rods before you; otherwise might not observe the cracks when upon them. It is as if the very globe itself were a crystal with a certain number of facets.

When I look westward now to the flat snow-crusted shore, it reflects a strong violet color. Also the pink light reflected from the low, flat snowy surfaces amid the ice on the meadows, just before sunset, is a constant phenomenon these clear winter days. Whole fields and sides of hills are often the same, but it is more distinct on

these flat islands of snow scattered here and there over the meadow ice. I also see this pink in the dust made by the skaters. Perhaps the green seen at the same time in ice and water is produced by the general yellow or amber light of this hour, mingled with the blue of the reflected sky??

Surely the ice is a great and absorbing phenomenon. Consider how much of the surface of the town it occupies, how much attention it monopolizes! We do not commonly distinguish more than one kind of water in the river, but what various kinds of ice there are!

Young Heywood told me that the trout which he caught in Walden was twenty-seven inches long and weighed five pounds, but was thin, not in good condition. (He saw another.) It was in the little cove between the deep one and the railroad.

VIII

FEBRUARY, 1859

(ÆT. 41)

Feb. 1. P. M. — Up Assabet.

The river having suddenly gone down since the freshet, I see cakes of ice eight or ten feet across left two feet high or more above the banks, frozen to four or five maples or oaks. Indeed, each shore is lined with them, where wooded, a continuous row attached to alders, maples, swamp white oaks, etc., which grow through them or against their edges. They are somewhat like tables of a picnic party or a muster-field dinner. Rustic tables and seats. Sometimes a little inclined, having settled on one side. Also an ice-belt adheres to the steep shores, and the rain and melted snow, running down, has drifted over the edge of it, forming abundant and pretty icicles, and you see where this hard and thick ice has bent under its own weight.

As for large oak leaves now, I think there is not much difference between the white and scarlet oaks; then come black, red, and swamp white, but the last one has scarcely any.

Feb. 2. I see Peter Hutchinson cutting down a large red oak on A. Heywood's hillside, west of the former's house. He points out to me what he calls the "gray oak" there, with "a thicker bark" than the red. It is the scarlet oak.

Feb. 3. Five minutes before 3 P. M., Father died.[1]

After a sickness of some two years, going down-town in pleasant weather, doing a little business from time to time, hoeing a little in the garden, etc., Father took to his chamber January 13th, and did not come down again. Most of the time previously he had coughed and expectorated a great deal. Latterly he did not cough, but continued to raise. He continued to sit up in his chamber till within a week before he died. He sat up for a little while on the Sunday four days before he died. Generally he was very silent for many months. He was quite conscious to the last, and his death was so easy that we should not have been aware that he was dying, though we were sitting around his bed, if we had not watched very closely.[2]

I have touched a body which was flexible and warm, yet tenantless, — warmed by what fire? When the spirit that animated some matter has left it, who else, what else, can animate it?

How enduring are our bodies, after all! The forms of our brothers and sisters, our parents and children and wives, lie still in the hills and fields round about us, not to mention those of our remoter ancestors, and the matter which composed the body of our first human father still exists under another name.

When in sickness the body is emaciated, and the ex-

[1] [This sentence (with the date) has a full page to itself in the original Journal.]

[2] [See *Familiar Letters*, pp. 350, 351; Riv. 407, 408.]

pression of the face in various ways is changed, you perceive unexpected resemblances to other members of the same family; as if within the same family there was a greater general similarity in the framework of the face than in its filling up and clothing.

Father first came to this town to live with his father about the end of the last century, when he was about twelve years old. (His father died in 1801.) Afterward he went to the Lexington Academy (Parker's?) a short time, perhaps a year, then into Deacon White's store as clerk; then learned the dry-goods business in a store in Salem. (Aunt J. shows me a letter from him directly after his going there, dated 1807.) Was with a Hathaway. When about twenty-one, opened a store for himself on the corner where the town house stands of late years, a yellow building, now moved and altered into John Keyes's house. He did so well there that Isaac Hurd went into partnership with him, to his injury. They soon dissolved, but could not settle without going to law, when my father gained the case, bringing his books into court. Then, I think, he went to Bangor and set up with Billings, selling to Indians (among others); married; lived in Boston; writes thence to aunts at Bangor in 1815 with John on his knee; moved to Concord (*where I was born*), then to Chelmsford, to Boston, to Concord again, and here remained. Mother first came to Concord about the same age that father did, but a little before him.

As far as I know, Father, when he died, was not only one of the oldest men in the middle of Concord, but the

one perhaps best acquainted with the inhabitants, and the local, social, and street history of the middle of the town, for the last fifty years. He belonged in a peculiar sense to the village street; loved to sit in the shops or at the post-office and read the daily papers. I think that he remembered more about the worthies (and unworthies) of Concord village forty years ago, both from dealing as a trader and from familiar intercourse with them, than any one else. Our other neighbors, now living or very recently dead, have either come to the town more recently than he, or have lived more aloof from the mass of the inhabitants.

Some have spoken slightingly of the Indians, as a race possessing so little skill and wit, so low in the scale of humanity, and so brutish that they hardly deserved to be remembered, — using only the terms "miserable," "wretched," "pitiful," and the like. In writing their histories of this country they have so hastily disposed of this refuse of humanity (as they might have called it) which littered and defiled the shore and the interior. But even the indigenous animals are inexhaustibly interesting to us. How much more, then, the indigenous man of America! If wild men, so much more like ourselves than they are unlike, have inhabited these shores before us, we wish to know particularly what manner of men they were, how they lived here, their relation to nature, their arts and their customs, their fancies and superstitions. They paddled over these waters, they wandered in these woods, and they had their fancies and beliefs connected with the sea and the forest, which

concern us quite as much as the fables of Oriental nations do. It frequently happens that the historian, though he professes more humanity than the trapper, mountain man, or gold-digger, who shoots one as a wild beast, really exhibits and practices a similar inhumanity to him, wielding a pen instead of a rifle.

One tells you with more contempt than pity that the Indian had no religion, holding up both hands, and this to all the shallow-brained and bigoted seems to mean something important, but it is commonly a distinction without a difference. Pray, how much more religion has the historian? If Henry Ward Beecher knows so much more about God than another, if he has made some discovery of truth in this direction, I would thank him to publish it in *Silliman's Journal*, with as few flourishes as possible.

It is the spirit of humanity, that which animates both so-called savages and civilized nations, working through a man, and not the man expressing himself, that interests us most. The thought of a so-called savage tribe is generally far more just than that of a single civilized man.

I perceive that we partially die ourselves through sympathy at the death of each of our friends or near relatives. Each such experience is an assault on our vital force. It becomes a source of wonder that they who have lost many friends still live. After long watching around the sick-bed of a friend, we, too, partially give up the ghost with him, and are the less to be identified with this state of things.

The writer must to some extent inspire himself. Most

of his sentences may at first lie dead in his essay, but when all are arranged, some life and color will be reflected on them from the mature and successful lines; they will appear to pulsate with fresh life, and he will be enabled to eke out their slumbering sense, and make them worthy of their neighborhood. In his first essay on a given theme, he produces scarcely more than a frame and groundwork for his sentiment and poetry. Each clear thought that he attains to draws in its train many divided thoughts or perceptions. The writer has much to do even to create a theme for himself. Most that is first written on any subject is a mere groping after it, mere rubble-stone and foundation. It is only when many observations of different periods have been brought together that he begins to grasp his subject and can make one pertinent and just observation.

Feb. 5. When we have experienced many disappointments, such as the loss of friends, the notes of birds cease to affect us as they did.

I see another butcher-bird on the top of a young tree by the pond.

Feb. 7. Evidently the distant woods are more blue in a warm and moist or misty day in winter, and is not this connected with the blue in snow in similar days?

Going along the Nut Meadow or Jimmy Miles road, when I see the sulphur lichens on the rails brightening with the moisture I feel like studying them again as a relisher or tonic, to make life go down and digest well, as we use pepper and vinegar and salads. They are a

sort of winter greens which we gather and assimilate with our eyes.[1] That's the true use of the study of lichens. I expect that the lichenist will have the keenest relish for Nature in her every-day mood and dress. He will have the appetite of the worm that never dies, of the grub. To study lichens is to get a taste of earth and health, to go gnawing the rails and rocks. This product of the bark is the essence of all times. The lichenist extracts nutriment from the very crust of the earth. A taste for this study is an evidence of titanic health, a sane earthiness. It makes not so much blood as soil of life. It fits a man to deal with the barrenest and rockiest experience. A little moisture, a fog, or rain, or melted snow makes his wilderness to blossom like the rose. As some strong animal appetites, not satisfied with starch and muscle and fat, are fain to eat that which eats and digests, — the contents of the crop and the stomach and entrails themselves, — so the lichenist loves the tripe of the rock, — that which eats and digests the rocks. He eats the eater. "Eat-all" may be his name. A lichenist fats where others starve. His provender never fails. What is the barrenest waste to him, the barest rocks? A rail is the sleekest and fattest of coursers for him.[2] He picks anew the bones which have been picked a generation since, for when their marrow is gone they are clothed with new flesh for him. What diet drink can be compared with a tea or soup made of the very crust of the earth? There is no such collyrium or salve for sore eyes as these brightening lichens in a moist day. Go and

[1] [Channing, p. 112.]

[2] [Channing, p. 73.]

bathe and screen your eyes with them in the softened light of the woods.

Feb. 11. P. M. — To Ball's Hill over ice.

Among the common phenomena of the ice are those triangular points of thick ice heaved up a couple of feet where the ice has recently settled about a rock. The rock looks somewhat like a dark fruit within a gaping shell or bur. Also, now, as often after a freshet in cold weather, the ice which had formed around and frozen to the trees and bushes along the shore, settling, draws them down to the ground or water, often breaking them extensively. It reminds you of an alligator or other evil genius of the river pulling the trees and bushes which had come to drink into the water. If a maple or alder is unfortunate enough to dip its lower limbs into the freshet, dallying with it, their fate is sealed, for the water, freezing that night, takes fast hold on them like a vise, and when the water runs out from beneath, an irresistible weight brings them down to the ground and holds them there. Only the spring sun will soften the heart of this relentless monster, when, commonly, it is too late. How the ice far in the meadows, thus settling, spreads the clumps of willows, etc., on every side!

Nature works by contraries. That which in summer was most fluid and unresting is now most solid and motionless. If in the summer you cast a twig into the stream it instantly moved along with the current, and nothing remained as it was. Now I see yonder a long

row of black twigs standing erect in mid-channel where two months ago a fisherman set them and fastened his lines to them. They stand there motionless as guide-posts while snow and ice are piled up about them.

Such is the cold skill of the artist. He carves a statue out of a material which is fluid as water to the ordinary workman. His sentiments are a quarry which he works.[1]

I see only the chain of sunken boats passing round a tree above the ice.

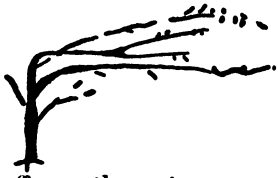
The south side of Ball's Hill, which is warm and half bare, is tracked up with partridges, and I start several there. So is it next Sunday with the Hill shore, east of Fair Haven Pond. These birds are sure to be found now on such slopes, where only the ground and dry leaves are exposed.

The water lately went down, and the ice settled on the meadows, and now rain has come, and cold again, and this surface is alternate ice and snow. Looking from this hill toward the sun, they are seen to be handsomely watered all over with alternate waves of shining ice and white snow-crust, literally "watered" on the grandest scale, — this palace floor.

Feb. 12. *Saturday.* You may account for that ash by the Rock having such a balanced and regular outline by the fact that in an open place their branches are equally drawn toward the light on all sides, and not because of a mutual understanding through the trunk.

[1] [Channing, p. 301.]

For there is Cheney's abele, which stands just south of a large elm. It grows wholly southward, and in form is just half a tree. So with



the tupelos under the Hill shore, east of Fair Haven Pond. They terminate abruptly like a bull's horn, having no upward leading shoot, and bend off over the water, — are singularly one-sided. In short, trees appear to grow regularly because the sky and diffusion of light are commonly regular.

There is a peculiarly drooping elm at George Prescott's great gate just north of his house, very different from the common or upright stiff-branched ones near by it.

Feb. 13. P. M. — On ice to Fair Haven Pond.

Yesterday there was no skating, unless you swept the snow from the ice; but to-day, though there has been no rain nor thaw, there is pretty good skating. Yesterday the water which had flowed, and was flowing, back over the ice on each side of the river and the meadows, a rod or two in width, was merely skimmed over, but last night it froze so that there is good skating there. Also the wind will generally lay bare some portion of the ice, unless the snow is very deep.

This yellowish ice which froze yesterday and last night is thickly and evenly strewn with fibrous frost-crystals very much like bits of asbestos, an inch or more long, sometimes arranged like a star or rosette, one for every inch or two; but where I broke in yesterday, and

apparently wherever the water overflowed the thin ice late in the day, there are none. I think that this is the vapor from the water which found its way up through the ice and froze in the night. It is sprinkled like some kind of grain, and is in certain places much more thickly strewn, as where a little snow shows itself above the ice.

The old ice is covered with a dry, powdery snow about one inch deep, from which, as I walk toward the sun, this perfectly clear, bright afternoon, at 3.30 o'clock, the colors of the rainbow are reflected from a myriad fine facets. It is as if the dust of diamonds and other precious stones were spread all around. The blue and red predominate. Though I distinguish these colors everywhere toward the sun, they are so much more abundantly reflected to me from two particular directions that I see two distant rays, or arms, so to call them, of this rainbow-like dust, one on each side of the sun, stretching away from me and about half a dozen feet wide, the two arms including an angle of about sixty degrees. When I look from the sun, I see merely dazzling white points. I can easily see some of these dazzling grains fifteen or twenty rods distant on any side, though the facet which reflects this light cannot be more than a tenth or twelfth of an inch at most. Yet I might easily, and commonly do, overlook all this.

Winter comes to make walking possible where there was no walking in summer. Not till winter do we take possession of the whole of our territory. I have three great highways raying out from one centre, which is near my door. I may walk down the main river or up either of its two branches. Could any avenues be con-

trived more convenient? With this river I am not compelled to walk in the tracks of horses.

Never is there so much light in the air as in one of these bright winter afternoons, when all the earth is covered with new-fallen snow and there is not a cloud in the sky. The sky is much the darkest side, like the bluish lining of an egg-shell. There seems nothing left to make night out of. With this white earth beneath and that spot[less] skimmed-milk sky above him, man is but a black speck inclosed in a white egg-shell.

Sometimes in our prosaic moods, life appears to us but a certain number more of days like those which we have lived, to be cheered not by more friends and friendship but probably fewer and less. As, perchance, we anticipate the end of this day before it is done, close the shutters, and with a cheerless resignation commence the barren evening whose fruitless end we clearly see, we despondingly think that all of life that is left is only this experience repeated a certain number of times. And so it would be, if it were not for the faculty of imagination.

I see, under this ice an inch thick, a large bubble with three cracks across it, yet they are so fine — though quite distinct — that they let no air up, and I release it with my knife. An air-bubble very soon makes the ice look whitish above it. It is whitest of all when it is fairly inclosed, with ice beneath it. When, by treading above it, I dislodge a bubble under this ice which formed only last night, I see that it leaves the outline of its form behind, the ice being a little thinner above it.

Here is the track of one who walked here yesterday. The age of the track is betrayed by a certain smoothness

or shininess produced by the sun shining on the raw and disturbed edges and melting them. The fresh track is evidently made in a dry, powdery substance; that of yesterday, as if it were made in a slightly glutinous matter, or which possessed considerable tenacity.

Then there is the wonderful stillness of a winter day. The sources of sound, as of water, are frozen up; scarcely a tinkling rill of it is to be heard. When we listen, we hear only that sound of the surf of our internal sea, rising and swelling in our ears as in two seashells. It is the sabbath of the year, stillness audible, or at most we hear the ice belching and crackling as if struggling for utterance.

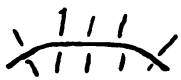
A transient acquaintance with any phenomenon is not sufficient to make it completely the subject of your muse. You must be so conversant with it as to *remember* it and be reminded of it long afterward, while it lies remotely fair and elysian in the horizon, approachable only by the imagination.

Feb. 14. P. M. — On ice up Assabet to railroad.

The ice-belt which I still see along the steep bank of the Assabet is now some three weeks old, and though it was then six or eight inches thick, it is now only two or three, or much less, in many places nearly wasted away, and those once horizontal tables are often fallen aslant, like shields pierced with many holes. That belt, at first

consisting of more or less blunt triangles projecting four or five feet from the bank, was at first, of course,

perfectly horizontal and level (I see where dogs and foxes have run along on it for half a mile together), but now, such is the flexibility of the ice, it is bent downward by its own weight, thus: or if you stand in front of it, it is a waving or undulating line instead of a

level one, *i. e.* on its edge. I see one table, where the ice is a little more than one inch thick, which is curved downward on the sides eighteen inches within a horizontal distance of two and a half feet, thus:  There is nothing like a crack at this bend. Some of the belt itself, where three inches thick, has bent downward eighteen inches at four or five feet from the bank. I also see on Sunset Interval a large cake a rod square and a foot thick with more than a foot of soil attached beneath, which, by its own weight resting high and dry there, has bent very considerably. In one great cake there just like this, I see a fence-post with three holes in it standing upright, and perhaps the whole of it has been brought away in the soil beneath. It does not appear where it came from. Looking at the edge of one of these cakes, I notice some bubbles, seen edgewise, in the form of some buttons or of an inverted Moorish dome. These are they which when you look down on them appear thus:

As I walk over thin ice, settling it down, I see great bubbles under, three or four feet wide, go waddling or wobbling away like a scared lady impeded

by her train.[1] I have but little doubt that the musquash gets air from these bubbles, which are probably very conspicuous under the ice. They are its reservoirs.

Feb. 15. P. M. — Up river to Fair Haven Pond.

I thought, by the peculiar moaning sound of the wind about the dining-room at noon, that we should have a rain-storm. I heard only one blast through some crack, but no doubt that betrayed a *pluvious* breath.

I am surprised to find how much it has thawed in the street, though there has been no rain, only a south wind. There is already water standing over an icy foundation, and the dirt of the street is more obvious, the snow having partly melted away from it. We walk through almost invisible puddles on the river and meadows, in which we see the trees, etc., reflected.

I see some remarkable overflowed ice. Here is one shield of an oval form, some twenty feet long, very regularly and interestingly mottled with yellowish or dead-leaf color, the stain of the mead, which by some law has been regularly distributed through the white, yet so delicately shaded off that it almost makes you dizzy to look at it. It reminds me of the beginning of a higher organization, or bony structure in a molluscous fish. The overflow must have been from the centre, where it burst up and flowed each way. In the proper light I am surprised to detect very fine and perfectly regular curving rays within the ice, just like the veins of some

[1] [Channing, p. 301.]

leaves, only finer and more regular, bilateral, perhaps a trace of the water as it flowed, — say like the lines of a cowry shell. It is but imperfectly suggested in the drawing.

Against the thickening air, trees are more and more distinct. The apple trees, so moist, are blacker than ever. A distant white birch, erect on a hill against the white, misty sky, looks, with its fine twigs, so distinct and black, like a millipede crawling up to heaven. The white oak leaves against the darker green of pines, now moist, are far more reddish.

Against Bittern Cliff I feel the first drop strike the right slope of my nose and run down the ravine there. Such is the origin of rivers.[1] Not till half a mile further my doubting companion feels another on his nose also, and I get one [in] my eye, and soon after I see the countless dimples in the puddles on the ice. So measured and deliberate is Nature always. Then the gentle, spring-like rain begins, and we turn about.

The sound of it pattering on the dry oak leaves, where young oaks thickly cover a hillside, is just like that of wind stirring them, when first heard, but is steady and monotonous and so betrayed. We rejoice to be wetted, and the very smell of wet woollen clothes exhilarates us.

I forgot to say (the 14th) that there are two of those ice-belts, a narrower and thinner one about twenty inches below the first, often connected with it by icicles at the edge. Thus each rise was recorded.

[1] [Channing, p. 118.]

Feb. 16. P. M. — From the entrance of the Mill road I look back through the sun, this soft afternoon, to some white pine tops near Jenny Dugan's. Their flattish boughs rest stratum above stratum like a cloud, a green mackerel sky, hardly reminding me of the concealed earth so far beneath. They are like a flaky crust of the earth,[1] a more ethereal, terebinthine, evergreen earth. It occurs to me that my eyes rest on them with the same pleasure as do those of the hen-hawk which has been nestled in them.

My eyes nibble the piny sierra which makes the horizon's edge, as a hungry man nibbles a cracker.

The hen-hawk and the pine are friends. The same thing which keeps the hen-hawk in the woods, away from the cities, keeps me here. That bird settles with confidence on a white pine top and not upon your weathercock. That bird will not be poultry of yours, lays no eggs for you, forever hides its nest. Though willed, or *wild*, it is not willful in its wildness. The unsympathizing man regards the wildness of some animals, their strangeness to him, as a sin; as if all their virtue consisted in their tamableness. He has always a charge in his gun ready for their extermination. What we call wildness is a civilization other than our own. The hen-hawk shuns the farmer, but it seeks the friendly shelter and support of the pine. It will not consent to walk in the barn-yard, but it loves to soar above the clouds. It has its own way and is beautiful, when we would fain subject it to our will. So any surpassing work of art is strange and wild to the mass of men, as is genius itself.

[1] [Channing, p. 114.]

No hawk that soars and steals our poultry is wilder than genius, and none is more persecuted or above persecution. It can never be poet laureate, to say "Pretty Poll" and "Polly want a cracker."[1]

Feb. 20. Have just read "Counterparts, or the Cross of Love," by the author of "Charles Auchester." It is very interesting — its illustration of Love and Friendship — as showing how much we can know of each other through sympathy merely, without any of the ordinary information. You know about a person who deeply interests you more than you can be told. A look, a gesture, an act, which to everybody else is insignificant tells you more about that one than words can. (How language is always found to serve best the highest moods, and expression of the highest truths!) If he wished to conceal something from you it would be apparent. It is as if a bird told you. Something of moment occurs. Your friend designs that it shall be a secret to you. Vain wish! You will know it, and his design. He says consciously nothing about it, yet as he is necessarily affected by it, its effect is visible to you. From this effect you infer the cause. Have you not already anticipated a thousand possible accidents? Can you be surprised? You unconsciously through sympathy make the right supposition. No other will account for precisely this behavior. You are disingenuous, and yet your knowledge exceeds the woodcraft of the cunningest hunter. It is as if you had a sort of trap, knowing the haunts of your game, what lures attract it,

[1] [Channing, p. 114.]

and its track, etc. You have foreseen how it will behave when it is caught, and now you only behold what you anticipated.

Sometimes from the altered manner of our friend, which no cloak can possibly conceal, we know that something has happened, and what it was, all the essential particulars, though it would be a long story to tell, — though it may involve the agency of four or five persons who never breathed it to you. Yet you are sure, as if you had detected all their tracks in the wood. You are the more sure because, in the case of love, effects follow their causes more inevitably than usual, this being a controlling power. Why, a friend tells all with a look, a tone, a gesture, a presence, a friendliness. He is present when absent.

In the composition it is the greatest art to find out as quickly as possible which are the best passages you have written, and tear the rest away to come at them. Even the poorest parts will be most effective when they serve these, as pediments to the column.

How much the writer lives and endures in coming before the public so often! A few years or books are with him equal to a long life of experience, suffering, etc. It is well if he does not become hardened. He learns how to bear contempt and to despise himself. He makes, as it were, *post-mortem* examinations of himself before he is dead. Such is art.

P. M. — The rain ceases, and it clears up at 5 P. M. It is a warm west wind and a remarkably soft sky, like plush; perhaps a lingering moisture there. What a reve[la]tion the blue and the bright tints in the west

again, after the storm and darkness! It is the opening of the windows of heaven after the flood!

Feb. 22. Go to Worcester to lecture in a parlor.

Feb. 23. P. M. — Walk to Quinsigamond Pond, where was good skating yesterday, but this very pleasant and warm day it is suddenly quite too soft. I was just saying to Blake that I should look for hard ice in the shade, or [on the] north side, of some wooded hill close to the shore, though skating was out of the question elsewhere, when, looking up, I saw a gentleman and lady very gracefully gyrating and, as it were, courtesying to each other in a small bay under such a hill on the opposite shore of the pond. Intervening bushes and shore concealed the ice, so that their swift and graceful motions, their bodies inclined at various angles as they gyrated forward and backward about a small space, looking as if they would hit each other, reminded me of the circling of two winged insects in the air, or hawks receding and approaching.

I first hear and then see eight or ten bluebirds going over. Perhaps they have not reached Concord yet. One boy tells me that he saw a bluebird in Concord on Sunday, the 20th.[1]

I see, just caught in the pond, a brook pickerel which, though it has no transverse bars, but a much finer and slighter reticulation than the common, is very distinct from it in the length and form of the snout. This is

[1] *Vide* March 9th. According to newspaper, they were seen 23d February also in Connecticut, and March 3d in West Roxbury.

much shorter and broader as you look down on it, thus:

In Bell Pond (once Bladder Pond) on the same road, near to Worcester, they were catching little shiners, only, at most, two inches long, for perch bait. (The perch and pickerel they commonly catch at Quinsigamond are small.) They cut a round hole about three feet in diameter and let down a simple net of this form, with only a stone to sink it in the bottom, then cast Indian meal or bits of cracker into the water, and the minnows swim forward after the bait, and the fisherman, without seeing them, pulls up the net at a venture.

Feb. 25. Heard Staples, Tuttle, E. Wood, N. Barrett, and others this morning at the post-office talking about the profit of milk-farming. The general conclusion seemed to be that it was less profitable than it was three years ago. Yet Staples thought he could name half a dozen who had done well. He named one. He thought he could name eight or ten who had paid off the mortgages on their farms by this means within a few years. Tuttle said he would give him a good supper if he would name three. Staples named only the one referred to above, David Buttrick, but he added, looking at Tuttle, "There is yourself. You know you came to town with nothing in your pocket but an old razor, a few pennies, and a damned dull jack-knife, and

now you are richer than David Buttrick." "Well," answered Tuttle, "I should n't have been, if I had n't used the razor so much."

When it snowed yesterday very large flakes, an inch in diameter, Aunt said, "They are picking geese." This, it seems, is an old saying.

Measure your health by your sympathy with morning and spring. If there is no response in you to the awakening of nature, — if the prospect of an early morning walk does not banish sleep, if the warble of the first bluebird does not thrill you, — know that the morning and spring of your life are past. Thus may you feel your pulse.

I heard this morning a nuthatch on the elms in the street. I think that they are heard oftener and again [*sic*] at the approach of spring, just as the *phœbe* note of the chickadee is; and so their *gnah gnah* is a herald of the spring.

Joe Smith says that he saw blackbirds this morning. I hear that robins were seen a week or more ago. So the birds are quite early this year.

P. M. — Up river on ice.

I see a handful of the scarlet *Rosa Carolina* hips in the crotch of a willow on some mud, a foot or more above the ice. They are partly eaten, and I think were placed there by a musquash. The rose bush, with a few hips on it, still stands in the ice within a few feet. Goodwin says he has seen their tracks eight or ten rods long to an apple tree near the water, where they have been for apples.

Along edge of Staples's meadow sprout-land, the young maples, some three years old, are stripped down,

i. e. the lower branches for a foot or two, by the ice falling. This barks and wounds the young trees severely.

The ice over the middle of the river is now alternately dark and whitish. I see the river beginning to show dark through the thinnest parts, in broad crescents convex up-stream, single or connected.

A good book is not made in the cheap and offhand manner of many of our scientific Reports, ushered in by the message of the President communicating it to Congress, and the order of Congress that so many thousand copies be printed, with the letters of instruction for the Secretary of the Interior (or rather exterior); the bulk of the book being a journal of a picnic or sporting expedition by a brevet Lieutenant-Colonel, illustrated by photographs of the traveller's footsteps across the plains and an admirable engraving of his native village as it appeared on leaving it, and followed by an appendix on the palæontology of the route by a distinguished savant who was not there, the last illustrated by very finely executed engravings of some old broken shells picked up on the road.

There are several men of whose comings and goings the town knows little. I mean the trappers. They may be seen coming from the woods and river, perhaps with nothing in their hands, and you do not suspect what they have been about. They go about their business in a stealthy manner for fear that any shall see

where they set their traps, — for the fur trade still flourishes here. Every year they visit the out-of-the-way swamps and meadows and brooks to set or examine their traps for musquash or mink, and the owners of the land commonly know nothing of it. But, few as the trappers are here, it seems by Goodwin's accounts that they steal one another's traps.

All the criticism which I got on my lecture on Autumnal Tints at Worcester on the 22d was that I assumed that my audience had not seen so much of them as they had. But after reading it I am more than ever convinced that they have not seen much of them, — that there are very few persons who do see much of nature.

Feb. 27. P. M. — To Cliffs.

Though it was a dry, powdery snow-storm yesterday, the sun is now so high that the snow is soft and sticky this afternoon. The sky, too, is soft to look at, and the air to feel on my cheek.

Health makes the poet, or sympathy with nature, a good appetite for his food, which is constantly renewing him, whetting his senses. Pay for your victuals, then, with poetry; give back life for life.

Feb. 28. To Cambridge and Boston.

Saw a mackerel in the market. The upper half of its sides is mottled blue and white like the mackerel sky, as stated January 19th, 1858.

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